

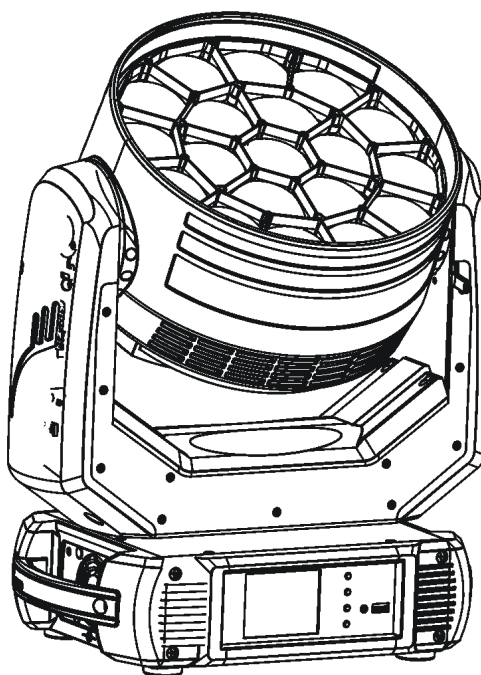
**ROBE**

# **ROBIN<sup>®</sup> Spider**

## **ROBIN<sup>®</sup> Spider**

Wireless DMX

CRMX<sup>™</sup>



 **ROBIN<sup>®</sup>**  
Innovative Technology

QR code for user manual



**USER MANUAL**

ROBE<sup>®</sup> lighting s.r.o. • Czech Republic • [www.robe.cz](http://www.robe.cz)

Version 3.3

# Robin Spider

## Table of contents

|                                                |           |
|------------------------------------------------|-----------|
| <b>1. Safety instructions .....</b>            | <b>3</b>  |
| <b>2. Operating determination.....</b>         | <b>4</b>  |
| <b>3. Fixture exterior view .....</b>          | <b>6</b>  |
| <b>4. Installation.....</b>                    | <b>7</b>  |
| 4.1 Connection to the mains .....              | 7         |
| 4.2 Eggcrate installation.....                 | 7         |
| 4.3 Diffuser installation.....                 | 8         |
| 4.4 Rigging the fixture .....                  | 9         |
| 4.5 DMX-512 connection.....                    | 11        |
| 4.6 Ethernet connection .....                  | 12        |
| 4.7 Wireless DMX operation .....               | 14        |
| <b>5. Remotely controllable functions.....</b> | <b>15</b> |
| <b>6. Control menu map.....</b>                | <b>17</b> |
| <b>7. Control menu .....</b>                   | <b>20</b> |
| 7.1 Tab " Address".....                        | 21        |
| 7.2 Tab "Information" .....                    | 22        |
| 7.3 Tab "Personality" .....                    | 23        |
| 7.4 Tab "Manual Control".....                  | 25        |
| 7.5 Tab "Stand-alone" .....                    | 25        |
| 7.6 Tab "Service" .....                        | 26        |
| <b>8. RDM .....</b>                            | <b>29</b> |
| <b>9. Error and information messages .....</b> | <b>31</b> |
| <b>10. Technical Specifications.....</b>       | <b>32</b> |
| <b>11. Maintenance and cleaning.....</b>       | <b>33</b> |
| 11.1 Removing the optical module .....         | 35        |
| 11.2 Disposing of the product.....             | 37        |
| <b>12. ChangeLog .....</b>                     | <b>37</b> |
| <b>13. Photometric diagrams.....</b>           | <b>38</b> |
| <b>14. Appendix - DMX modes overview .....</b> | <b>40</b> |

**CAUTION!**  
***Keep this device away from rain and moisture!***  
***Unplug mains lead before opening the housing!***

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY  
BEFORE YOU INITIAL START - UP!**

## **1. Safety instructions**

Every person involved with installation and maintenance of this device have to:

- be qualified
- follow the instructions of this manual

**CAUTION!**  
***Be careful with your operations.***  
***With a high voltage you can suffer***  
***a dangerous electric shock when touching the wires!***

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

### **Important**

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

Handle the power cord and all connections with the mains with particular caution!

Make sure that the available voltage is not higher than stated on the rear panel.

**WARNING!** This unit does not contain an ON/OFF switch. Always disconnect power input cable to completely remove power from unit when not in use or before cleaning or servicing the unit.

Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power cord.

This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.

The electric connection, repairs and servicing must be carried out by a qualified employee.

Do not connect this device to a dimmer pack.

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

Do not touch the device's housing bare hands during its operation (housing becomes hot)!  
For replacement use fuses of same type and rating only.

***LED light emission. Risk of eye injury.***  
***Do not look straight at the fixture's LED source during operation. The intense light beam may damage your eyes. Sensitive persons may suffer an epileptic shock.***  
***Provide advance notice that strobe lighting is in use.***  
***Do not view the light output with optical instruments or any device that may concentrate the beam. The light source contains blue LEDs.***

## 2. Operating determination

This device is a moving head for creating decorative effects and was designed for indoor use only.

This device is for professional use only. It is not for household use.

If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

Do not shake the device. Avoid brute force when installing or operating the device.

Never lift the fixture by holding it at the projector head, as the mechanics may be damaged. Always hold the fixture at the transport handles.

When choosing the installation spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.

Always secure the fixture with an appropriate safety wire.

Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.

The maximum ambient temperature 45°C must never be exceeded.

**To avoid damage of an internal optical system of the fixture, never let the sunlight (or other light source) lights directly to the lens array, even when the fixture is not working**

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!

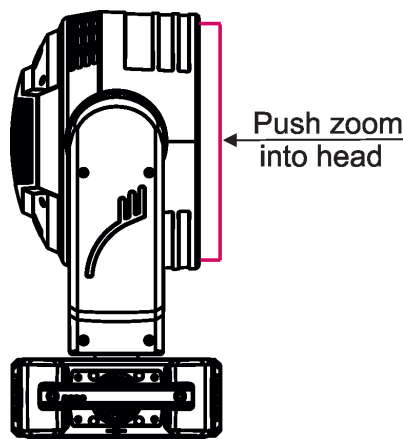
Please use the original packaging if the device is to be transported.

Please consider that unauthorized modifications on the device are forbidden due to safety reasons!

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, burns etc.

**Potential foggy front lens array does not influence function of the fixture and does not subject to complaint.**

**Always push the zoom module into the head before inserting the fixture into the flight case.**

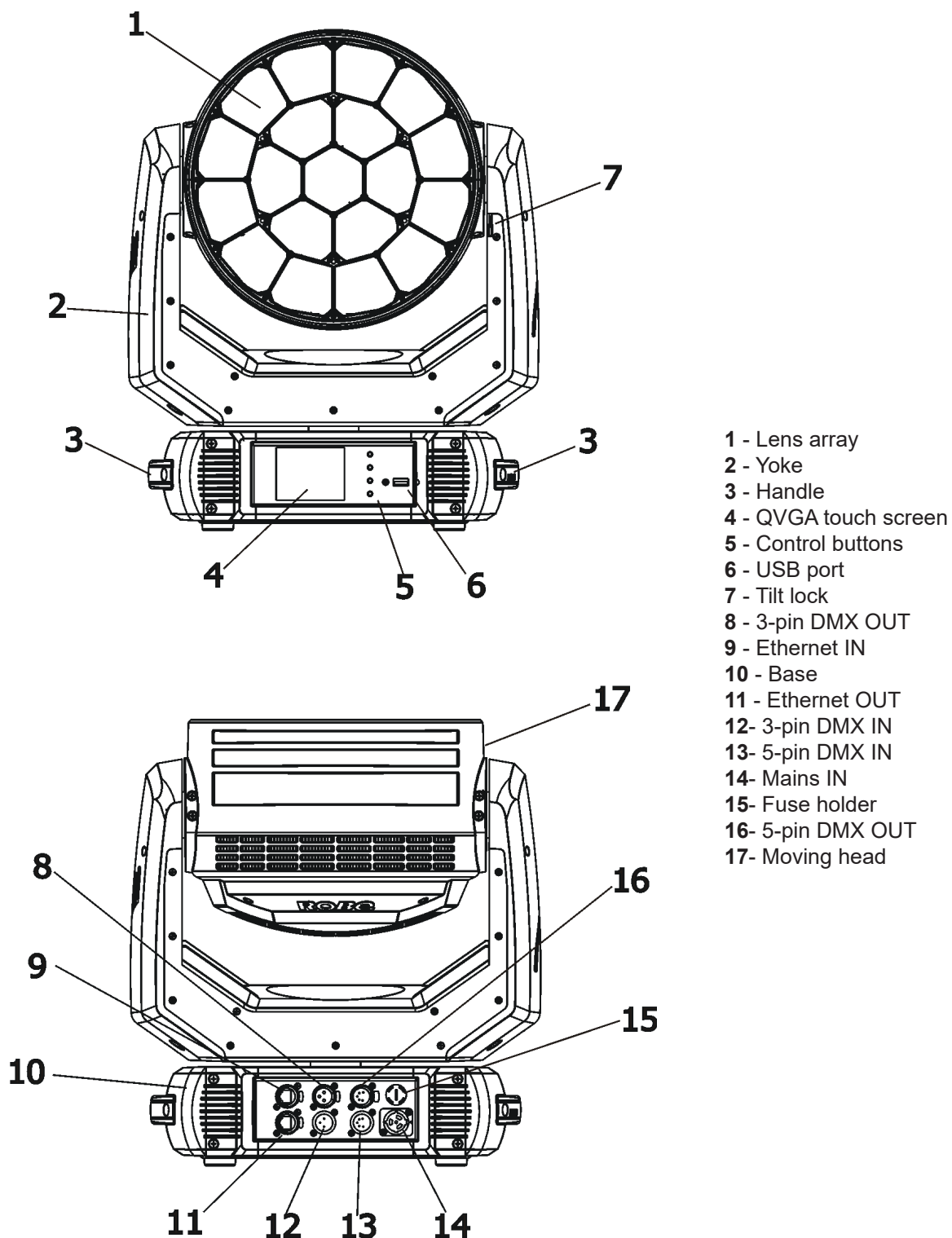


Immunity of the equipment is designed for electromagnetic environments E1, E2, E3 according to the standard EN55103-2 ed.2 Electromagnetic compatibility. Product family standard for audio, video, audiovisual and entertainment lighting control apparatus for professional use. Part 2: Immunity.

The installation company should check levels of possible interferences above the tested levels E1,E2,E3 given by this standard (e.g. transmitters in surrounding area) before installing the equipment.

Emission of the equipment complies with the standard EN55032 Electromagnetic compatibility of multimedia equipment – Emission Requirements according to class B.

### 3. Fixture exterior view



The head should be locked for transportation - the tilt lock latch (7) has to be in the locked position. To unlock the head, move this latch to unlock position before operating the fixture.

The ENTER/DISPLAY ON button also serves for switching the display on when the fixture is disconnected from the mains.

## 4. Installation



**Fixtures must be installed by a qualified electrician in accordance with all national and local electrical and construction codes and regulations.**

### 4.1 Connection to the mains

**For protection from electric shock, the fixture must be earthed!**

The Robin Spider is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts.

If you install a cord cap on the power cable to allow connection to power outlets, install a grounding-type (earthed) plug, following the plug manufacturer's instructions.

The cores in the power cable are coloured according to the following table.

| Core (EU)    | Core (US) | Connection | Plug Terminal Marking |
|--------------|-----------|------------|-----------------------|
| Brown        | Black     | Live       | L                     |
| Light blue   | White     | Neutral    | N                     |
| Yellow/Green | Green     | Earth      |                       |

This device falls under class one and must be earthed (grounded)!

To apply power, first check that the head pan and tilt locks are released.

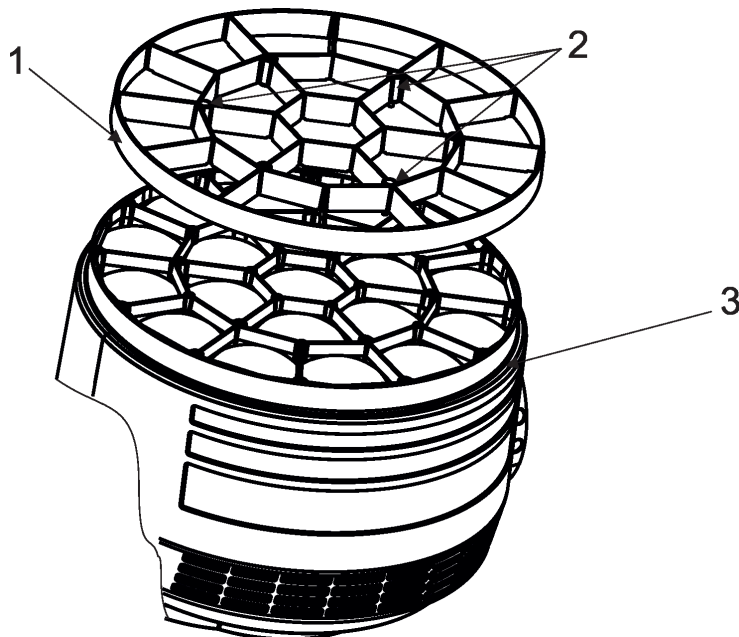
Wiring and connection work must be carried out by qualified staff!

### 4.2 Eggcrate installation

**Disconnect the fixture from mains before eggcrate installation**

Screw the eggcrate (1) to the zoom module (3) by means of the three screws (2). It is possible to screw another eggcrate to the installed eggcrate.

Do not install the eggcrate on the zoom module with diffuser.



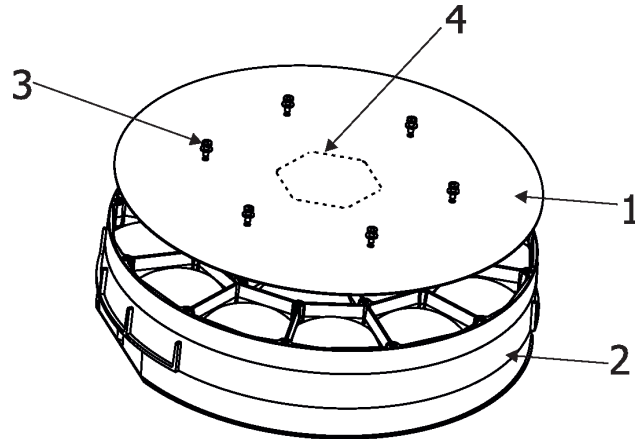
## 4.3 Diffuser installation

**Disconnect the fixture from mains before diffuser installation**

Screw the diffuser (1) to the zoom module (2) by means of the six screws M3x8 with washers (3). Glossy side towards lens arrays.

There is a marked shape (4) of the middle pixel on the plastic film. If you wish to use a pure flower effect (create by means of the middle pixel), remove the marked film from diffuser before its installation. Put the diffuser on the flat surface (be careful not to scratch it) and use a sharp knife to remove the marked plastic film (4).

Note: the diffuser can be installed on the eggcrate, in this case use only three screws M3x8 with washers.



## 4.4 Rigging the fixture

A structure intended for installation of the fixture (s) must safely hold weight of the fixture(s) placed on it. The structure has to be certificated to the purpose.

The fixture (fixtures) must be installed in accordance with national and local electrical and construction codes and regulations.

***For overhead installation, the fixture must be always secured with a safety wire that can bear at least 10 times the weight of the fixture.***

When rigging, derigging or servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

Allow the fixture to cool for ten minutes before handling.

The fixture should be installed outside areas where persons may walk by or be seated.

**IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE**, including calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the projector. If you lack these qualifications, do not attempt the installation yourself, but use a help of professional companies.

**CAUTION:** Fixtures may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do not install the fixture!

The fixture has to be installed out of the reach of public.

The fixture must never be fixed swinging freely in the room.

**Danger of fire !**  
**When installing the device, make sure there is no highly inflammable material (decoration articles, etc.) in a distance of min. 0.5 m.**

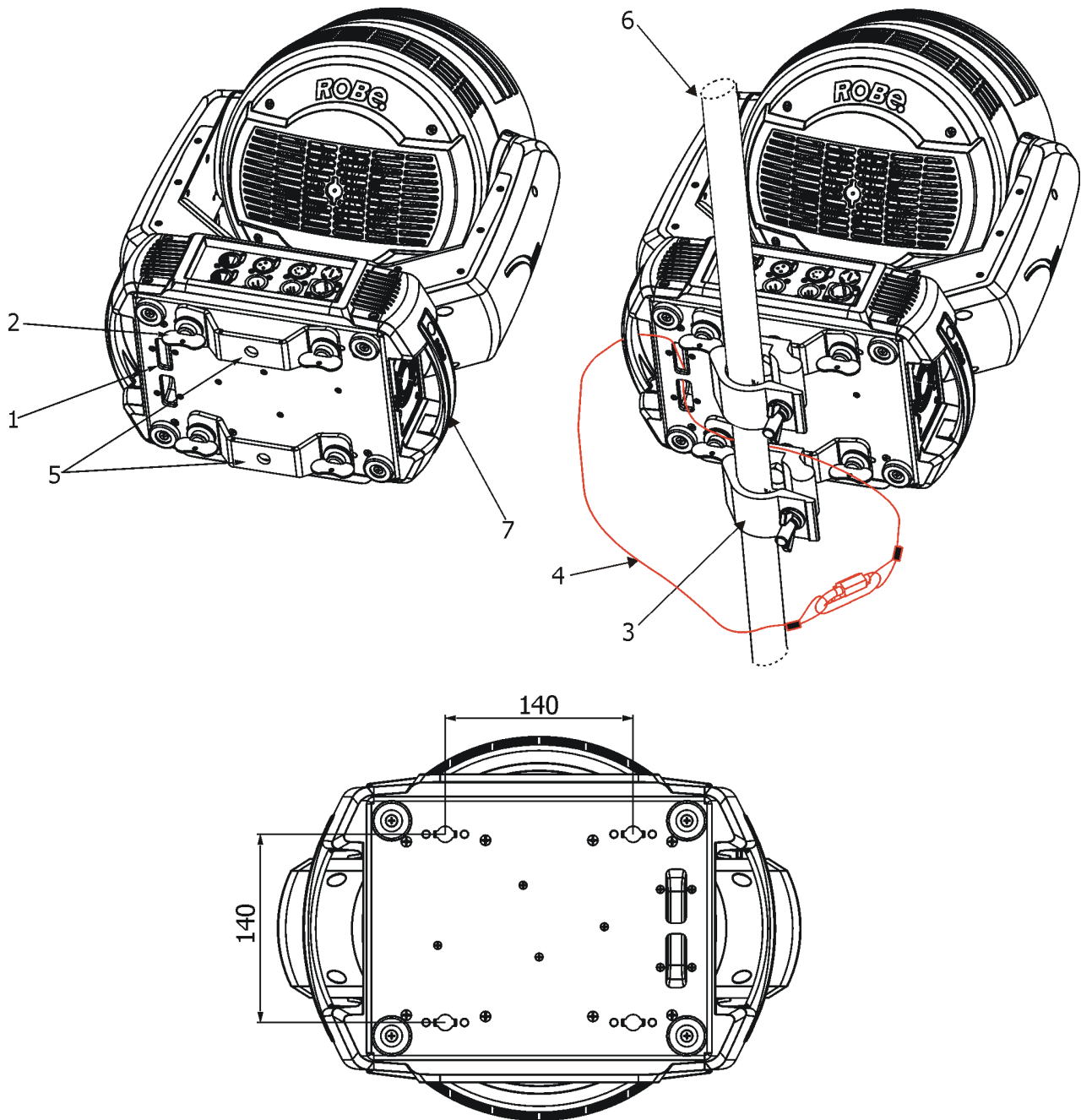
**CAUTION!**  
**Use 2 appropriate clamps to rig the fixture on the truss.**  
**Follow the instructions mentioned at the bottom of the base.**  
**Make sure that the device is fixed properly! Ensure that the structure (truss) to which you are attaching the fixtures is secure.**

The fixture can be placed directly on the stage floor or rigged in any orientation on a truss without altering its operation characteristics .

For securing the fixture to the truss, install a safety wire which can hold at least 10 times the weight of the fixture. Use only the safety wire with a snap hook with screw lock gate.

### Truss installation

1. Bolt the clamp (3) to the omega holder (5) with M12 bolt and lock nut through the hole in the holder.
  2. Fasten the omega holders to the bottom of the base by inserting both quick-lock fasteners (2) into the holes of the base and tighten fully clockwise.
  3. Clamp the fixture on a truss (6) and tighten the rigging clamps.
  4. Pull the safety wire (4) through the attachment point (1) and through the handle (7) and around the truss (6) and lock the snap hook with screw lock gate.
- Use only a safety wire with a snap hook with screw lock gate.



**When installing fixtures side-by-side,  
avoid illuminating one fixture with another!**

### **DANGER TO LIFE!**

**Before taking into operation for the first time, the installation has to be approved by an expert!**

**In order to protect the internal parts of the head from the sun, the function PARKING POSITION must be switched ON before switching the fixture off.**

The PARKING POSITION function is located on the Power/Special functions channel (120-129 DMX). If the function is on, the fixture will automatically detect via G-sensor whether the fixture is on the floor or hangs on the truss or is mounted sideways on the truss and moves the pan and tilt to the position (including movement of zoom to the front part of the head) in which the head will always face down. Owing this position of the fixture head, there is not chance to burn internal parts of the head by the sun light.

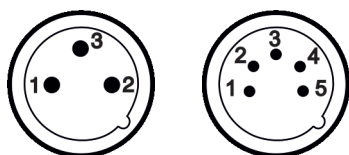
## 4.5 DMX-512 connection

The fixture is equipped with both 3-pin and 5-pin XLR sockets for DMX input and output. The sockets are wired in parallel.

Only use a shielded twisted-pair cable designed for RS-485 and 3-pin or 5-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

### DMX output

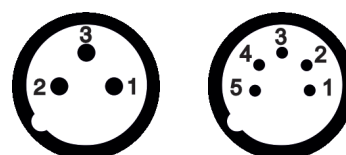
#### XLR sockets (female)



- 1 - Shield
- 2 - Signal (-)
- 3 - Signal (+)
- 4 - Not connected
- 5 - Not connected

### DMX input

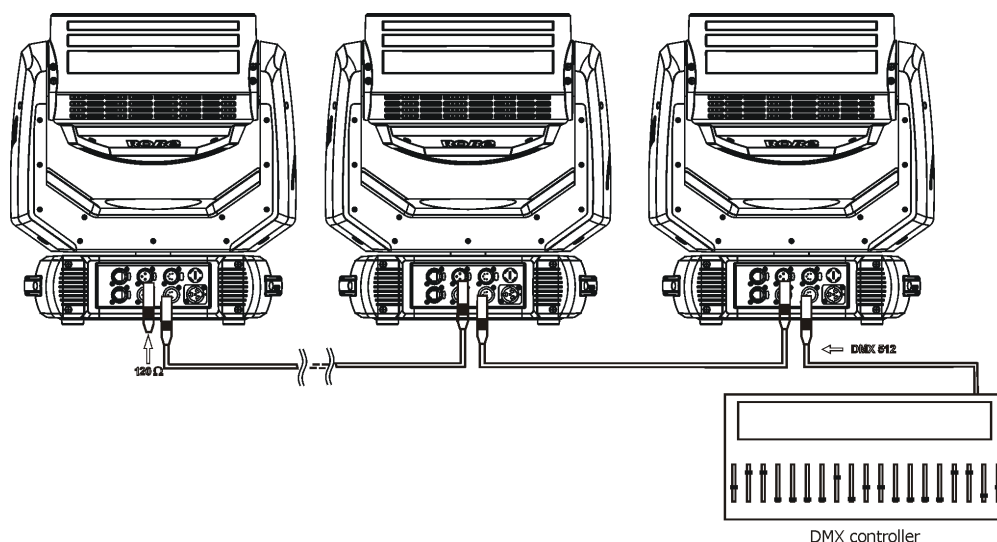
#### XLR sockets (male)



### Building a serial DMX-chain:

Connect the DMX-output of the first fixture in the DMX-chain with the DMX-input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected. Up to 32 fixtures can be connected.

**Caution:** At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120  $\Omega$  resistor between Signal (-) and Signal (+) into a 3-pin (5-pin) XLR-plug and plug it in the DMX output of the last fixture.



## 4.6 Ethernet connection

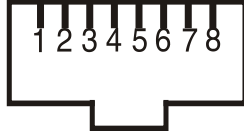
The fixtures on a data link are connected to the Ethernet with appropriate communication protocol (e.g. Art-Net). The control software running on your PC (or light console) has to support Art-Net protocol. Art-Net communication protocol is a 10 Base T Ethernet protocol based on the TCP/IP. Its purpose is to allow transfer of large amounts of DMX 512 data over a wide area using standard network technology.

**IP address** is the Internet protocol address. The IP uniquely identifies any node (fixture) on a network.

**The Universe** is a single DMX 512 frame of 512 channels.

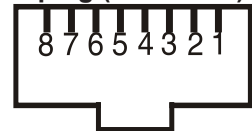
The Robin Spider is equipped with 8-pin RJ-45 sockets for Ethernet connection. Use a network cable category 5 (with four "twisted" wire pairs) and standard RJ-45 plugs in order to connect the fixture to the network.

**RJ-45 socket (front view):**



- |                  |                  |
|------------------|------------------|
| 1- TD+           | 5- Not connected |
| 2- TD-           | 6- RX-           |
| 3- RX+           | 7- Not connected |
| 4- Not connected | 8- Not connected |

**RJ-45 plug (front view):**



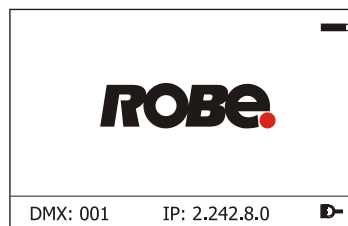
Patch cables that connect fixtures to the hubs or LAN sockets are wired 1:1, that is, pins with the same numbers are connected together:

|     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 1-1 | 2-2 | 3-3 | 4-4 | 5-5 | 6-6 | 7-7 | 8-8 |
|-----|-----|-----|-----|-----|-----|-----|-----|

If only the fixture and the computer are to be interconnected, no hubs or other active components are needed. A cross-cable has to be used:

|     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 1-3 | 2-6 | 3-1 | 4-8 | 5-7 | 6-2 | 7-5 | 8-4 |
|-----|-----|-----|-----|-----|-----|-----|-----|

If the fixture is connected with active Ethernet socket (e.g. switch) the network icon  will appear at the bottom right corner of the screen:



### Ethernet operation

Connect the Ethernet inputs of all fixtures with the Ethernet network.

Option "Artnet (gMal or gMA2)" has to be selected from "Ethernet Mode" menu on the fixture.

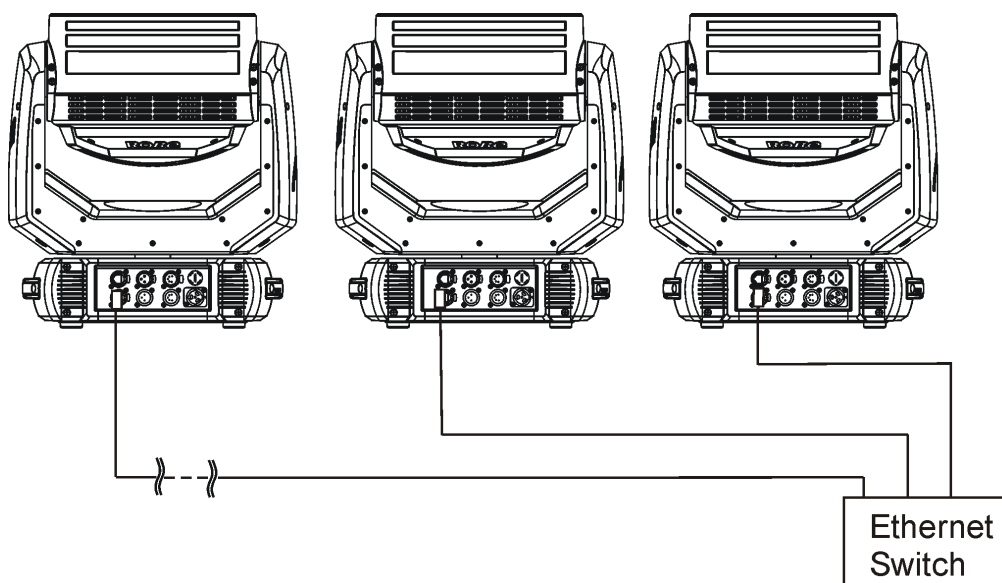
Set IP address (002.xxx.xxx.xxx / 010.xxx.xxx.xxx) and the Universe.

Example:

(DMX address=217)  
IP address=002.168.002.004  
Universe=1

(DMX address=28)  
IP address=002.168.002.003  
Universe=1

(DMX address=1)  
IP address=002.168.002.002  
Universe=1



An advised PC setting: IP address: 002.xxx.xxx.xxx / 010.xxx.xxx.xxx (Different from fixture IP addresses)  
NET mask: 255.0.0.0

If you use fixture's Ethernet IN/Ethernet OUT ports for Ethernet IN-OUT connection, max. 8 fixtures can be connected in the IN-OUT line.

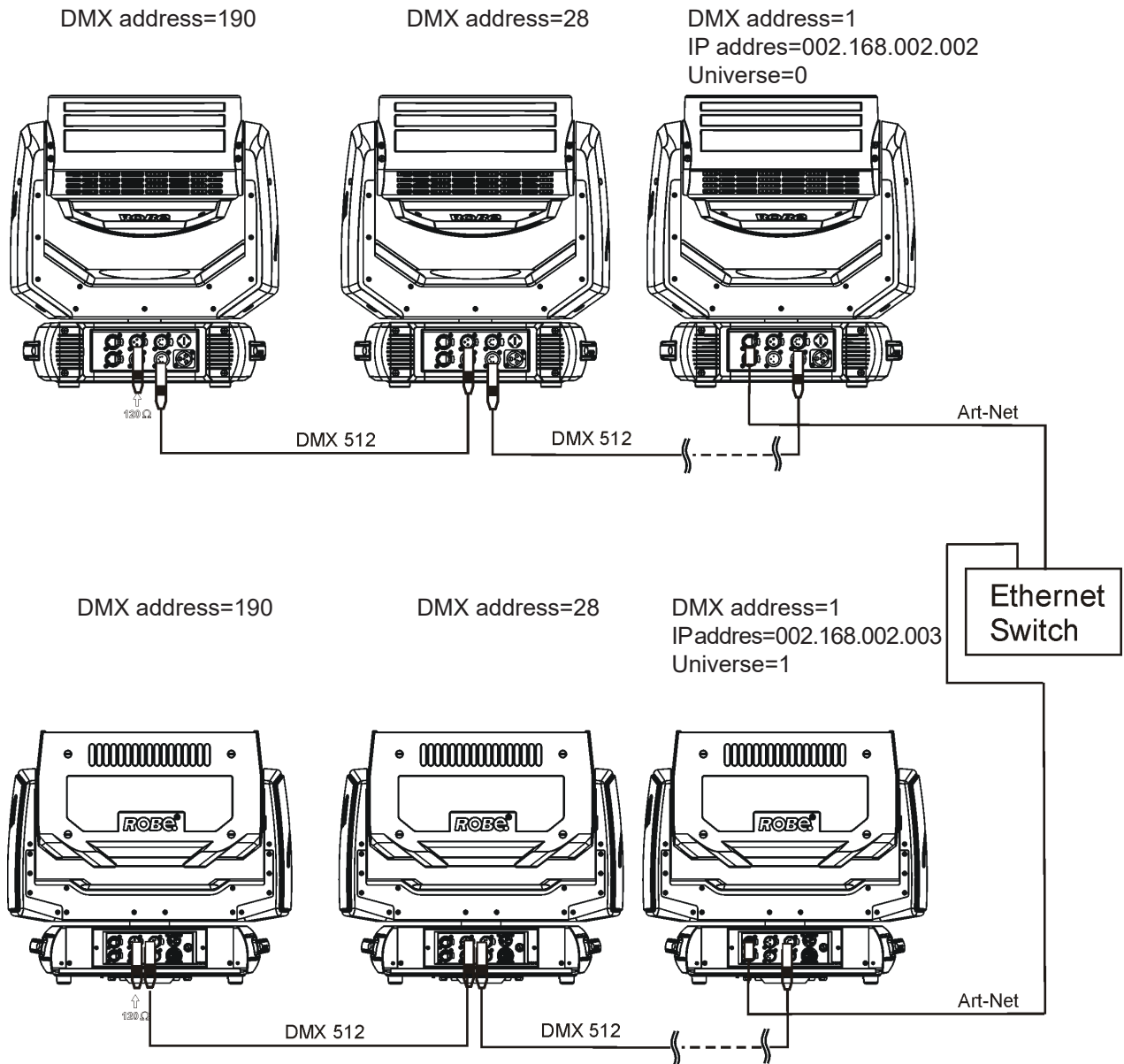
## Ethernet / DMX operation

Options "Ethernet To DMX" has to be selected from the "Ethernet Settings" menu on the first fixture (connected to the Ethernet) in the fixture chain, next fixtures have standard DMX setting.

Connect the Ethernet-input of the first fixture in the data chain with the network. Connect the DMX output of this fixture with the input of the next fixture until all fixtures are connected to the DMX chain.

**Caution:** At the last fixture, the DMX chain has to be terminated with a terminator. Solder a 120  $\Omega$  resistor between Signal (-) and Signal (+) into a XLR-plug and connect it in the DMX-output of the last fixture.

Example:



## 4.7 Wireless DMX operation

The wireless version of the Robin Spider is equipped with the Lumen Radio CRMX module and antenna for receiving DMX signal. CRMX module operates on the 2.4 GHz band.

The item "Wireless" from the menu "DMX Input" allows you to activate receiving of wireless DMX (Personality--> DMX Input -->Wireless.). First two options from the "DMX Input" menu are stated in DMX chart as well (channel Power/Special functions , range of 10-19 DMX). If DMX input option is changed by DMX command, the change is permanently written into fixture's memory.

**DMX range of 10-19 switching fixture to the wired/wireless operation is active only during first 10 seconds after switching the fixture on.**

After switching the fixture on, the fixture checks both modes of receiving DMX in the following order:

1. For the first five seconds, the fixture receives DMX signal from the wired input. If the Power/Special functions channel is set at some DMX input option, the fixture will receive DMX value according to this option. If DMX input option is set to the wired input , this option is saved and checking procedure is finished. If DMX input option is not set, the fixture continues next 5 seconds in scanning wireless DMX signal-see point 2.
2. For the next 5 seconds the fixture receives wireless DMX signal and again detects if the Power/Special functions channel is set at some DMX input option, if not, the fixture will take option which is set in the fixture menu "DMX Input".

To link the fixture with DMX transmitter.

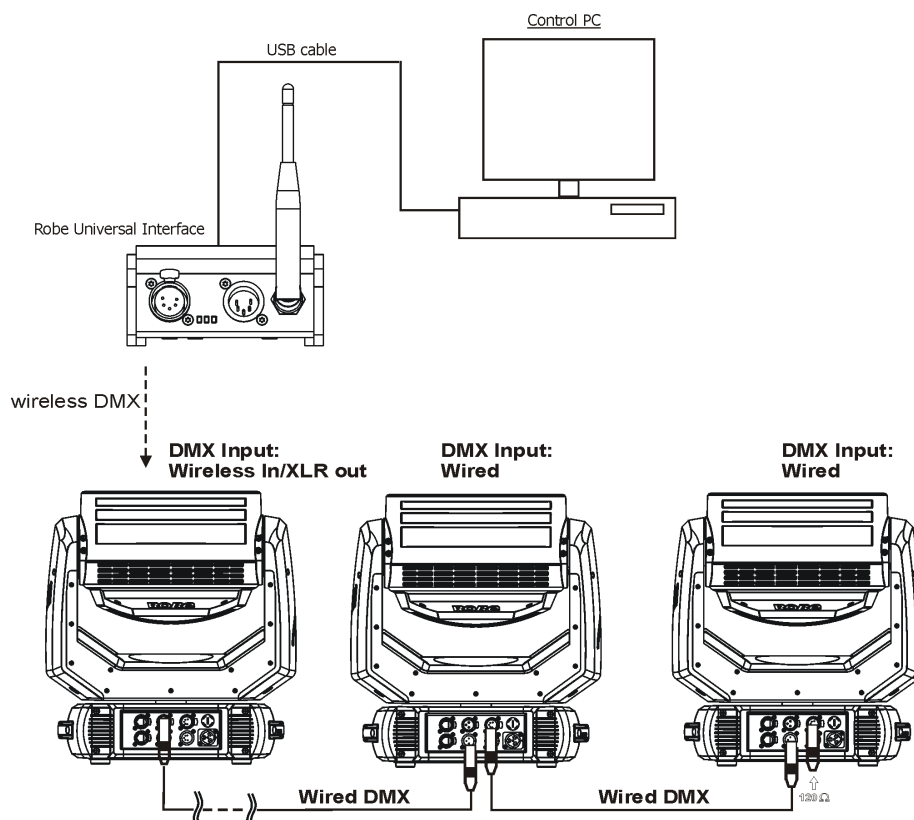
The fixture can be only linked with the transmitter by running the link procedure at DMX transmitter . After linking , the level of DMX signal ( 0-100 %) is displayed in the menu item "Wireless State" (Information -->Wireless State).

To unlink the fixture from DMX transmitter.

The fixture can be unlinked from receiver via the menu item "Unlink Wireless Adapter" (Information--> Wireless State --> Unlink Wireless Adapter).

**Note:** If the option "Wireless In/XLR Out" is selected (Personality--> DMX Input -->Wireless In/XLR Out), the fixture receives wireless DMX and sends the signal to its wired DMX output. The fixture behaves as "Wireless/Wired" adapter.

Example:



## 5. Remotely controllable functions

### Virtual colour wheel

This wheel contains 66 preset colours, rainbow effect in both directions is available.

### Colour temperature correction (CTC)

This channel allows to set calibrated white colour from range of 8000K-2700K.

### RGBW or CMY colour mixing system

The RGBW colour mixing system is based on red, green, blue and white high power LEDs. Option for switching the fixture to the CMY colour mixing system is available.

### Colour Mix control

The Colour Mix control channel defines relation between global colours (RGBW, CTC, Virtual colour wheel) and individual RGB pixels or Kling-Net.

Global = Global Colours (RGBW, CTC, Virtual Color Wheel)

Pixel = Pixel Colors (RGB individual pixels or Kling-Net)

#### DMX value

#### Function

|         |                                                |
|---------|------------------------------------------------|
| 0-9     | Global colours (Global has priority)           |
| 10-19   | Maximum mode (highest values have priority)    |
| 20-29   | Minimum mode (lowest values have priority)     |
| 30-39   | Multiply mode (multiply Global and Pixel)      |
| 40-49   | Addition mode (Global + Pixel) - default       |
| 50-59   | Subtraction mode (Global – Pixel)              |
| 60-69   | Inverted Subtraction mode (Pixel – Global)     |
| 70-79   | Coloured background                            |
| 80-127  | Reserved                                       |
| 128     | Global colours (Global has priority)           |
| 129-254 | Crossfade (crossfade between Global and Pixel) |
| 255     | Pixel colours (Pixel has priority)             |

E.g. If you wish to control RGBW channels, set the Colour Mix Control channel to 0 DMX, if you need to use pixel effects, set the Colour Mix Control channel to 255 DMX.

### Flower Effect

The flower effect rotating in both directions allows to create many dynamic effects.

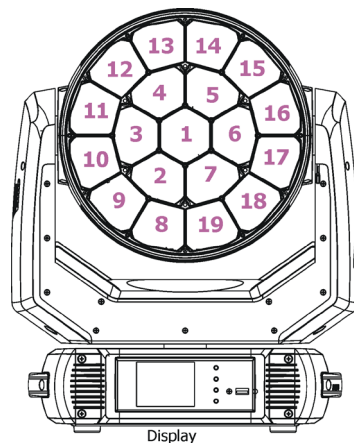
### Zoom

Motorized zoom offers beam range of 4° to 50°.

### Pixel control and pixel effects

19 RGB pixels allow you to create many effects or use 90 pre-defined pixel effects

Pixel order:



Pan=128

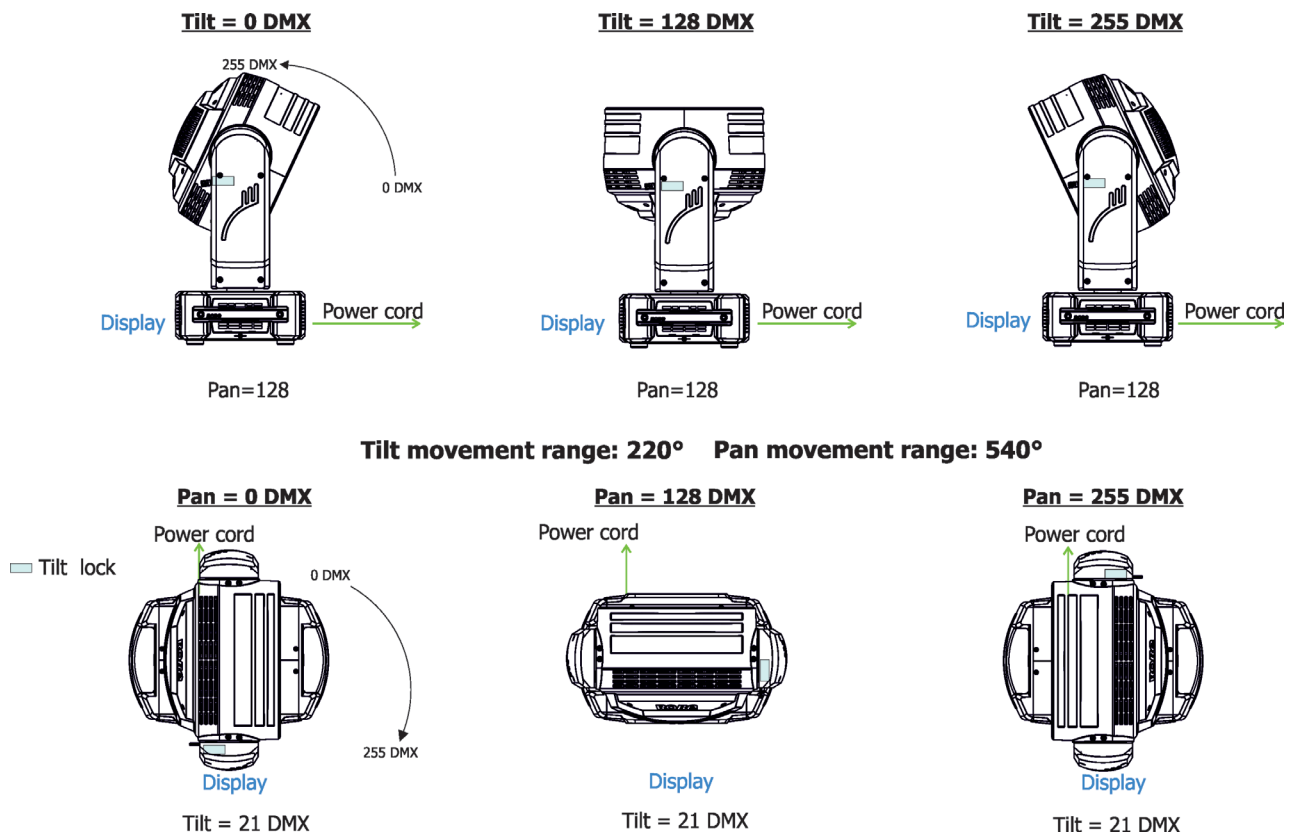
Tilt=235

### Dimmer/Shutter unit

Smooth 0 - 100 % dimming is provided by the electronic control unit. This unit is also used for strobe effects with variable speed.

## Pan/Tilt

Precise pan/tilt movement due to built-in electronic motion stabilizer. The electronic motion stabilizer ensures precise position of the fixture's head during its movement and reduces its swinging when the truss shakes. Pan movement range: 540°, tilt movement range: 220°.



## 6. Control menu map

Default settings=**Bold print**

| Tab                                                                                 | Level 1              | Level 2                 | Level 3                                   | Level 4            | Level 5     | Level 6 |
|-------------------------------------------------------------------------------------|----------------------|-------------------------|-------------------------------------------|--------------------|-------------|---------|
| Addressing                                                                          | Settings             | DMX Address             | 001-512                                   |                    |             |         |
|    |                      | DMX Preset              | <b>Mode 1</b> , Mode 2,<br>Mode 3, Mode 4 |                    |             |         |
|                                                                                     |                      | Ethernet Settings       | Ethernet Mode                             | Disable            |             |         |
|                                                                                     |                      |                         |                                           | ArtNet             |             |         |
|                                                                                     |                      |                         |                                           | gMA1               |             |         |
|                                                                                     |                      |                         |                                           | gMA2               |             |         |
|                                                                                     |                      |                         |                                           | sACN               |             |         |
|                                                                                     |                      |                         |                                           |                    |             |         |
|                                                                                     |                      |                         | Ethernet To DMX                           | <b>Off</b> , On    |             |         |
|                                                                                     |                      |                         | IP Address/Net Mask                       | Default IP Address |             |         |
|                                                                                     |                      |                         |                                           | Custom IP Address  |             |         |
|                                                                                     |                      |                         |                                           | Net Mask           |             |         |
|                                                                                     |                      |                         | ArtNet Universe                           | 0-255              |             |         |
|                                                                                     |                      |                         | MANet settings                            | MANet/II Universe  | 01-256      |         |
|                                                                                     |                      |                         |                                           | MANet Session ID   | 01-32       |         |
|                                                                                     |                      |                         | sACN Settings                             | sACN Universe      | 00001-32000 |         |
|                                                                                     |                      |                         |                                           | sACN Priority      | 0-255       |         |
|                                                                                     |                      |                         | Klingnet Settings                         | <b>Disable</b>     |             |         |
|                                                                                     |                      |                         |                                           | Enable             |             |         |
|                                                                                     |                      |                         |                                           |                    |             |         |
| Information                                                                         | Fixture Times        | Power On Time           | Total Hours                               |                    |             |         |
|  |                      |                         | Resetable Hours                           |                    |             |         |
|                                                                                     |                      | Air Filters             | Elapsed Time                              |                    |             |         |
|                                                                                     |                      |                         | Alert Period                              | 10-300             |             |         |
|                                                                                     | Fixture Temperatures | LEDs Temperature        | Current                                   |                    |             |         |
|                                                                                     |                      |                         | Maximum NonRes.                           |                    |             |         |
|                                                                                     |                      |                         | Maximum Res.                              |                    |             |         |
|                                                                                     |                      | Base Temperature        | Current                                   |                    |             |         |
|                                                                                     |                      |                         | Maximum NonRes.                           |                    |             |         |
|                                                                                     |                      |                         | Maximum Res.                              |                    |             |         |
|                                                                                     | DMX Values           | Pan                     |                                           |                    |             |         |
|                                                                                     |                      | :                       |                                           |                    |             |         |
|                                                                                     |                      | Blue Pixel 19           |                                           |                    |             |         |
|                                                                                     | Wireless State       | Signal Quality          |                                           |                    |             |         |
|                                                                                     |                      | Unlink Wireless Adapter |                                           |                    |             |         |
|                                                                                     | Power Channel State  |                         |                                           |                    |             |         |
|                                                                                     | Software Versions    | Display System          |                                           |                    |             |         |
|                                                                                     |                      | Module M                |                                           |                    |             |         |
|                                                                                     |                      | Module DR               |                                           |                    |             |         |
|                                                                                     |                      | Module PX               |                                           |                    |             |         |
|                                                                                     | Product IDs          | Mac Address             |                                           |                    |             |         |
|                                                                                     |                      | RDM UID                 |                                           |                    |             |         |
|                                                                                     |                      | RDM Label               |                                           |                    |             |         |
|                                                                                     | View Logs            | Fixture Errors          |                                           |                    |             |         |
|                                                                                     |                      | Fixture States          | Power On                                  |                    |             |         |
|                                                                                     |                      |                         | Power Off                                 |                    |             |         |
|                                                                                     |                      | Fixture Position        |                                           |                    |             |         |
|                                                                                     |                      | Fixture Temperatures    | LEDs Temperatures                         |                    |             |         |
|                                                                                     |                      |                         | Base Temperatures                         |                    |             |         |
|                                                                                     |                      |                         |                                           |                    |             |         |

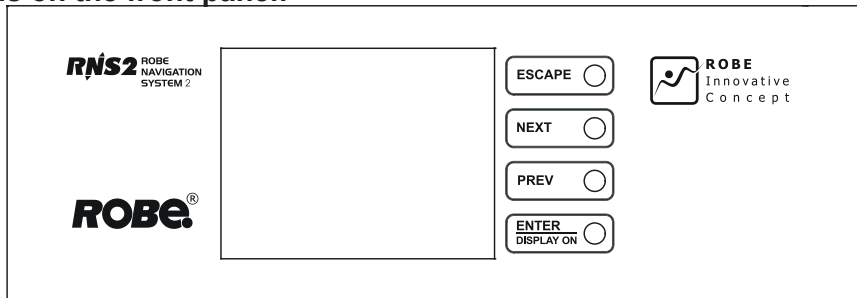
| Tab                                                                                 | Level 1                | Level 2                 | Level 3            | Level 4         | Level 5 | Level 6 |
|-------------------------------------------------------------------------------------|------------------------|-------------------------|--------------------|-----------------|---------|---------|
| Personality                                                                         |                        |                         |                    |                 |         |         |
|    | DMX Presets            | Mode 1                  |                    |                 |         |         |
|                                                                                     |                        | :                       |                    |                 |         |         |
|                                                                                     |                        | <b>Mode 6</b>           |                    |                 |         |         |
|                                                                                     |                        | :                       |                    |                 |         |         |
|                                                                                     |                        | Mode 10                 |                    |                 |         |         |
|                                                                                     |                        | View Selected Preset    |                    |                 |         |         |
|                                                                                     | DMX Input              | <b>Wired Input</b>      |                    |                 |         |         |
|                                                                                     |                        | Wireless Input          |                    |                 |         |         |
|                                                                                     |                        | Wireless In/XLR Out     |                    |                 |         |         |
|                                                                                     | Pan/Tilt Settings      | Pan Reverse             | <b>Off</b> , On    |                 |         |         |
|                                                                                     |                        | Tilt Reverse            | <b>Off</b> , On    |                 |         |         |
|                                                                                     |                        | Pan/Tilt Feedback       | Off, <b>On</b>     |                 |         |         |
|                                                                                     |                        | Pan/Tilt mode           | Time               |                 |         |         |
|                                                                                     |                        |                         | <b>Speed</b>       |                 |         |         |
|                                                                                     | Pan/Tilt EMS           | <b>On</b> , Off         |                    |                 |         |         |
|                                                                                     | Pixel Control          | Pixel Index             | <b>0-11</b>        |                 |         |         |
|                                                                                     |                        | Pixel Mirror            | On, <b>Off</b>     |                 |         |         |
|                                                                                     |                        | Reset to default        |                    |                 |         |         |
|                                                                                     | Microphone Sensitivity | <b>1-10-20</b>          |                    |                 |         |         |
|                                                                                     | Blackout Settings      | Blackout During M.C.    | <b>Off</b> , On    |                 |         |         |
|                                                                                     |                        | Blackout while:         | Pan/Tilt moving    | <b>Off</b> , On |         |         |
|                                                                                     | Colour Mixing Mode     | <b>RGBW</b>             |                    |                 |         |         |
|                                                                                     |                        | CMY                     |                    |                 |         |         |
|                                                                                     | White Point 8000K      | Off, <b>On</b>          |                    |                 |         |         |
|                                                                                     | Tungsten Eff. Sim.     | <b>Off</b>              |                    |                 |         |         |
|                                                                                     |                        | 750W                    |                    |                 |         |         |
|                                                                                     |                        | 1000W                   |                    |                 |         |         |
|                                                                                     |                        | 1200W                   |                    |                 |         |         |
|                                                                                     |                        | 2000W                   |                    |                 |         |         |
|                                                                                     |                        | 2500W                   |                    |                 |         |         |
|                                                                                     | Dimmer Curve           | Linear                  |                    |                 |         |         |
|                                                                                     |                        | <b>Square Law</b>       |                    |                 |         |         |
|                                                                                     | LEDs Output Frequency  | <b>Standard</b><br>High |                    |                 |         |         |
|                                                                                     | LEDs Frequency Adjust  | -6....0....+6           |                    |                 |         |         |
|                                                                                     | Init Effect Positions  | Pan                     | 0-255              |                 |         |         |
|                                                                                     |                        | :                       |                    |                 |         |         |
|                                                                                     |                        | Dimmer Fine             | 0-255              |                 |         |         |
|                                                                                     | Screen Settings        | Display Intensity       | <b>1-10</b>        |                 |         |         |
|                                                                                     |                        | Screen Saver Delay      | <b>Off</b> -10min. |                 |         |         |
|                                                                                     |                        | Touchscreen Lock        | <b>Off</b> -10min. |                 |         |         |
|                                                                                     |                        | Recalibrate Touchscreen |                    |                 |         |         |
|                                                                                     |                        | Display Orientation     | Normal             |                 |         |         |
|                                                                                     |                        |                         | Inverted           |                 |         |         |
|                                                                                     |                        |                         | <b>Auto</b>        |                 |         |         |
|                                                                                     | Temperature Unit       | <b>°C</b> , °F          |                    |                 |         |         |
|                                                                                     | Fan Mode               | <b>Auto</b>             |                    |                 |         |         |
|                                                                                     |                        | High                    |                    |                 |         |         |
|                                                                                     |                        | Silent                  |                    |                 |         |         |
|                                                                                     | Date & Time Settings   |                         |                    |                 |         |         |
|                                                                                     | Default Settings       |                         |                    |                 |         |         |
|                                                                                     |                        |                         |                    |                 |         |         |
| Manual Control                                                                      | Reset Functions        | Total System reset      |                    |                 |         |         |
|  |                        | Pan/Tilt reset          |                    |                 |         |         |
|                                                                                     |                        | Zoom Reset              |                    |                 |         |         |

| Tab                                                                                 | Level 1               | Level 2                   | Level 3            | Level 4  | Level 5     | Level 6     |
|-------------------------------------------------------------------------------------|-----------------------|---------------------------|--------------------|----------|-------------|-------------|
|                                                                                     |                       | Flower E. Reset           |                    |          |             |             |
|                                                                                     | Manual Effect Control | Pan                       | 0-255              |          |             |             |
|                                                                                     |                       | :                         |                    |          |             |             |
|                                                                                     |                       | Blue Pixel 19             | 0-255              |          |             |             |
| Stand -Alone                                                                        | Test Sequences        | Dynamic Mode              |                    |          |             |             |
|    |                       | Static Mode               | Pan                | 0-255    |             |             |
|                                                                                     |                       |                           | Tilt               | 0-255    |             |             |
|                                                                                     |                       |                           | Zoom               | 0-255    |             |             |
|                                                                                     | MusicTrigger          | Off, On                   |                    |          |             |             |
|                                                                                     | Preset Playback       | None                      |                    |          |             |             |
|                                                                                     |                       | Test                      |                    |          |             |             |
|                                                                                     |                       | Prog. 1                   |                    |          |             |             |
|                                                                                     |                       | Prog. 2                   |                    |          |             |             |
|                                                                                     |                       | Prog. 3                   |                    |          |             |             |
|                                                                                     | Play Program          | Play Program 1            |                    |          |             |             |
|                                                                                     |                       | Play Program 2            |                    |          |             |             |
|                                                                                     |                       | Play Program 3            |                    |          |             |             |
|                                                                                     | Edit Program          | Edit Program 1            | Start Step         | 1-100    |             |             |
|                                                                                     |                       |                           | End Step           | 1-100    |             |             |
|                                                                                     |                       |                           | Edit Program Steps | Step 1   | Pan         | 0-255       |
|                                                                                     |                       |                           |                    | :        | :           |             |
|                                                                                     |                       |                           |                    | :        | Dimmer Fine | 0-255       |
|                                                                                     |                       |                           |                    | :        | Step Time   | 0-25,5 sec. |
|                                                                                     |                       |                           |                    | Step 100 | Pan         | 0-255       |
|                                                                                     |                       |                           |                    |          | :           |             |
|                                                                                     |                       |                           |                    |          | Dimmer Fine | 0-255       |
|                                                                                     |                       |                           |                    |          | Step Time   | 0-25,5 sec. |
| Service                                                                             | Adjust DMX Values     | Pan                       | 0-255              |          |             |             |
|  |                       | :                         |                    |          |             |             |
|                                                                                     |                       | Blue Pixel 19             | 0-255              |          |             |             |
|                                                                                     | Calibrations          | Calibrate Effects         | Pan                | 0-255    |             |             |
|                                                                                     |                       |                           | Tilt:              | 0-255    |             |             |
|                                                                                     |                       |                           | FE rotation        | 0-255    |             |             |
|                                                                                     |                       | Calibrate colours         | Red                | 0-255    |             |             |
|                                                                                     |                       |                           | Green              | 0-255    |             |             |
|                                                                                     |                       |                           | Blue               | 0-255    |             |             |
|                                                                                     |                       |                           | White              | 0-255    |             |             |
|                                                                                     |                       |                           | Red Intensity      | 0-255    |             |             |
|                                                                                     |                       |                           | Green Intensity    | 0-255    |             |             |
|                                                                                     |                       |                           | Blue Intensity     | 0-255    |             |             |
|                                                                                     |                       |                           | White intensity    | 0-255    |             |             |
|                                                                                     |                       | Pixel Correction          | Red 1              | 0-255    |             |             |
|                                                                                     |                       |                           | Green 1            | 0-255    |             |             |
|                                                                                     |                       |                           | Blue 1             | 0-255    |             |             |
|                                                                                     |                       |                           | White 1            | 0-255    |             |             |
|                                                                                     |                       |                           | :                  |          |             |             |
|                                                                                     |                       |                           | Red 19             | 0-255    |             |             |
|                                                                                     |                       |                           | Green 19           | 0-255    |             |             |
|                                                                                     |                       |                           | Blue 19            | 0-255    |             |             |
|                                                                                     |                       |                           | White 19           | 0-255    |             |             |
|                                                                                     |                       | Calibrate Pan/Tilt EMS    |                    |          |             |             |
|                                                                                     |                       | Load Default Calibrations |                    |          |             |             |
|                                                                                     | Update Software       |                           |                    |          |             |             |

## 7. Control menu

The Robin Spider Light is equipped with the QVGA Robe touch screen with battery backup which allows to set the fixture's behaviour according to your needs, obtain information on its operation, test its various parts and lastly program it, if it has to be used in a stand-alone mode.  
The fixture's menu can be controlled either by the control buttons or directly by touching the icon.

### Control buttons on the front panel:



[ESCAPE] button used to leave the menu without saving changes.

[NEXT] , [PREV] buttons for moving between menu items and symbols, adjusting values.

[ENTER/Display On] button used to enter the selected menu (menu item) and to confirm adjusted value.

If the fixture is disconnected from mains, the button switches the touch screen on.

### Icons used in the touch screen menu:



- [back arrow] used to move back to the previous screen (menu).



- [up arrow] used to move up on the previous page.



- [down arrow] used to move down on the next page.



- [confirm] used to save adjusted values, to leave menu or to perform desired action.



- [cancel] used to leave menu item without saving changes.



- [confirm+copy] used to save adjusted values and copy them to the next prog. step.



- [warning icon] used to indicate some error which has occurred in the fixture.



- [Ethernet] used to indicate Ethernet connected.



- [display turn] used to turn the display by 180°.



- [slider control] used to recall slider system for setting desired value.



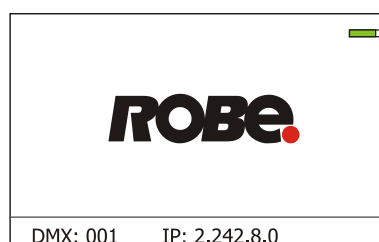
- [keyboard control] used to recall keyboard system for setting desired value.



- [air filters cleaning] used to signal that cleaning period of the air filters elapsed.

The menu page displays icons for each function that you can perform from the touch screen.

After switching the fixture on, the touch screen shows the screen with the ROBE logo:



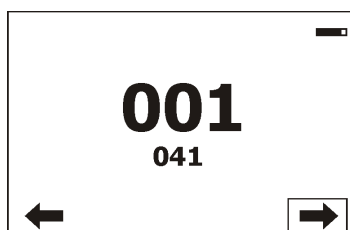
Note: The green icon at the top right corner of the screen indicates the level of the display battery charging. If the whole icon is green, the battery is fully charged while the red icon indicates exhausted battery. The battery charges during fixture operation, its charging lasts cca 6 hours.

We recommend that the fixture should be in operation at least 7 hours per week to keep the battery fully charged. If you switch the fixture on and this screen will not appear till 1 minute, switch the fixture off and on again. If the screen lights, the battery is exhausted. In case the screen still does not light, the battery is faulty.

This is also indicated by an error message "Faulty battery" and if such an error message appears the battery should be replaced immediately. The lifetime of the battery is highly dependent on ambient temperature (and consequently on base temperature). If the maximum ambient temperatures (as recorded and displayed in menu: Information -> Fixture Temperatures -> Ambient Temperature -> Maximum NonRes.) are kept within the specified limits, the battery should last for at least two years. Should the ambient temperatures exceed the specified maximum temperature, the lifetime of the batteries could be considerably shortened even up to just one year or less and also result in physical damage (battery leakage) or unreliable fixture functions.

Damage caused by batteries failed due to exceeded maximum ambient temperature cannot be claimed under warranty terms.

Touch any part of the screen or press the [ENTER/Display On] button to display the initial screen with the current stored DMX address:



Touch the green arrow at the bottom right corner of the screen or press the [ENTER/Display On] button to enter the "Address" menu.

Each item (such as a Tab, menu item, text box, icon) may be selected from a screen by simply touching the item in the list or by pressing the [NEXT] or [PREV] buttons to scroll through items. With each press, the next item is highlighted. Press [ENTER/Display On] to select the highlighted item.

**Before first fixture operation, set current date and time in the menu "Date & Time Settings" (menu path: Personality--> Date & Time Settings).**

## 7.1 Tab "Address"



**DMX Address** - Select the menu to set the DMX start address.

**DMX Preset** - Use the menu to select desired channel mode.

**View Selected Preset** - Use the menu to display channels included in the selected mode.

**Ethernet Settings** - The menu allows all needed settings for the Ethernet operation

### **Ethernet Mode**

**Disable** - The option disables Ethernet operation.

**Artnet** - Fixture receives Artnet protocol

**gMA1** - Fixture receives MANet 1 protocol

**gMA2** - Fixture receives MANet 2 protocol

**sACN** - Fixture receives sACN protocol

**Ethernet To DMX** - Fixture receives protocol from the Ethernet input and sends DMX data to its DMX output (fixture works as an "Ethernet/DMX converter", next fixture can be connected to its DMX output and you can build a standard DMX chain by connecting another fixtures. Only one fixture has to be connected to the Ethernet.

**IP Address/Net Mask** - Select this menu to set IP address. IP address is the Internet protocol address. The IP uniquely identifies any node (fixture) on a network.

There cannot be 2 fixtures with the same IP address on the network!

**Default IP Address** - Preset IP address, you can set up only first byte of IP address (2 or 10) e.g. **002.019.052.086**.

**Custom IP Address** - The option enables to set up all bytes of IP address.

**Net Mask** - The option enables to set up all bytes of Net Mask.

**ArtNet Universe** - Use this item to set a Universe (0-255). The Universe is a single DMX 512 frame of 512 channels.

**MANet Settings** - Use this menu to set parameters for MANet operation.

**MANet Universe I/II** - The value of this item can be set in range 1-256.

**MANet Session ID** - The value of this item can be set in range 1-32.

**sACN Settings** - Use this menu to set parameters for sACN operation.

**sACN Universe** - The value of this item can be set in range 1-32000.

**sACN Priority** - The value of this item can be set in range 0-255.

**Klingnet Settings** - Use this menu to enable or disable Klingnet protocol.

## 7.2 Tab "Information"



**Fixture Times** - The menu provides readouts of fixture operation hours and air filters using hours.

**Power On Time Hours** - Select this menu to read the number of fixture operation hours.

**Total Hours** - The item shows the total number of the operation hours since the Robin Spider has been fabricated.

**Resetable Hours** - The item shows the number of the operation hours that the Robin Spider has been powered on since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Resetable Hours:"

**Air Filters** - Regular cleaning of the air filters is very important for the fixture's life and performance.

Build-up of dust, dirt and fog fluid residues reduces the fixture's light output and cooling ability.

The two items of this menu help you to keep cleaning period of the air filters.

**Alert period** - Cleaning schedule for the fixture depends on the operating environment.

It is therefore impossible to specify accurate cleaning interval. This item allows you to change the cleaning interval of the air filters. This "alert" value is 300 hours and it is set as default. Inspect the fixture within its 300 hours of operation to see whether cleaning is necessary. If cleaning is required, clean all air filters and change the value in this menu on acceptable level. Min. level of alert period is 10 hours, max. is 300 hours.

**Elapsed Time** - The item allows you to read the time which remains to cleaning air filters.

The time period is set in the menu mentioned above.

Expired time period is signalled by a negative mark (-) at the time value and a warning icon on the display.

Clean the filters and reset this menu item (by touching the text box next to the item "Elapsed Time").

**Fixture Temperatures** - The menu is used to view temperatures of the fixture's inside.

**LEDs temperatures** - The menu shows temperature on the LEDs PCB.

**Cur.** - A current temperature of the LEDs PCB.

**Max.** - A maximum temperature of the LEDs PCB since the fixture has been fabricated.

**Max. Res.** - A maximum temperature of the LEDs PCB since the counter was last reset.

In order to reset some counter to 0, touch desired text box under item "Max.Res."

**Base Temperature** - The menu shows temperature in the fixture base (on the display PCB).

**Current** - A current temperature in the fixture base.

**Maximum NonRes.** - A maximum temperature in the fixture base since the fixture has been fabricated.

**Maximum Res.** - A maximum temperature in the fixture base since the counter was last reset.  
In order to reset this counter to 0, touch the text box next to the item "Maximum Res."

**DMX Values** - The menu is used to read DMX values of each channel received by the fixture.

**Wireless State** - The menu serves for reading of the wireless operation status.

**Unlink Wireless Adapter** - The item serves for unlinking the fixture from DMX transmitter.

**Power Channel State** - The menu item shows state of the Power/Special functions switches.

**Software Version** - Select this item to read the software version of the fixture modules:

**Display System** - A display processor on the display board in the fixture base

**Module M** - A pan/Tilt processors

**Module DR** - A LEDs driver

**Module PX** - Pixels + zooms control

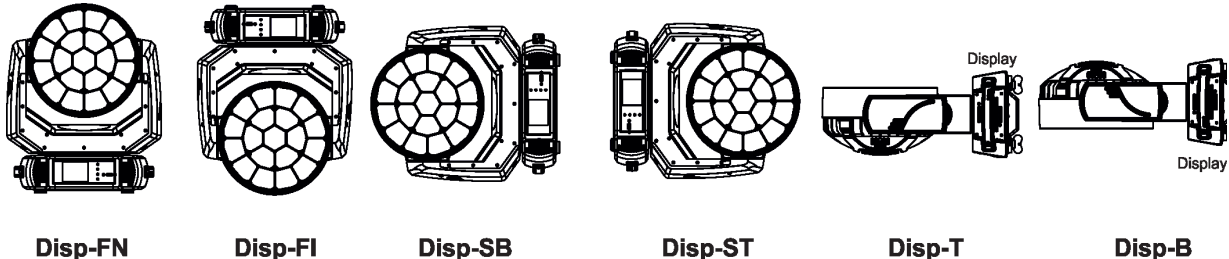
**Product IDs** - The menu is used to read the MAC Address ,RDM UID and RDM Label.

**View Logs** - Use this menu to read fixture's data which have been recorded during fixture operation. This collected data allows easier troubleshooting.

**Fixture Errors** - Use this menu to read fixture errors which have occurred during fixture operation.

**Fixture States** - Recorded following actions: Fixture On, Fixture Off.

**Fixture Position** - Recorded installation positions of the fixture:



**Fixture Temperatures** - Recorded temperatures which have exceeded defined levels.

Note: The log buffer can contain 8000 records max. If the buffer is full, old data will be overwritten.

## 7.3 Tab "Personality"



**DMX Preset** - Use the menu to select desired channel mode.

**View Selected Preset** - Use the menu to display channels included in the selected mode.

**DMX Input** - Use the menu to select mode of DMX signal receiving.

**Wired** - DMX signal is received by means of the standard DMX cable.

**Wireless** - DMX signal is received by means of the inbuilt wireless module.

**Wireless In/XLR Out** - the fixture receives wireless DMX and sends the signal to its wired DMX output.

The fixture behaves as "Wireless/Wired" adapter.

The options "Wired" and "Wireless" are also stated in DMX chart (channel Power/Special functions).

Note. If the wireless module is not installed in the fixture, the following message will appear:

DMX Input Set to Wired

Wireless Module Missing

If the fixture is not connected to mains, the message "Not Available In Offline Mode" will appear after entering the menu DMX Input. To enter this menu, the fixture has to be connected to mains.

**Pan/Tilt Settings** - Use the menu set behaviour of both pan and tilt movements.

**Pan Reverse** - The item allows to invert pan movement.

**Tilt Reverse** - The item allows to invert tilt movement.

**Pan/Tilt Feedback** - The item allows to return the moving head to the required pan/tilt position after changing the position by an external force if this option is set on.

Note. Be careful, the Pan/Tilt Feedback should be permanent On, the option Off is not suitable for standard operation and the head of the fixture can be damaged!

**Pan/Tilt mode** - Use this menu to set the mode of the pan/tilt movement

**Time mode** – The pan and tilt will move with different speeds and they will come at the same time to the end point of their tracks (pan and tilt use their optimal speeds). Time of the pan/tilt movement (25.5 sec. max.) is set by the channel "Pan/Tilt speed, Pan/Tilt time".

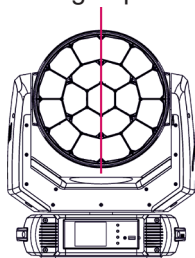
**Speed Mode** - Both Pan and tilt will move with the same speed as adjusted at the channel "Pan/Tilt speed, Pan/Tilt time".

**Pan/Tilt EMS** - Built-in electronic motion stabilizer ensures precise position of the fixture's head during its movement and also reducing its swinging when the truss shakes.

**Pixel Control** - Use the menu to index or mirror pixels.

**Pixel Index** - The item allows you to choose 12 positions of turned pixels.

**Pixel Mirror** - The item allows mirroring of pixels along a vertical axis.



Both functions you can also find on the channel Power/Special functions (210-225 DMX).

**Important:** If you use DMX commands to set values for both Pixel Index and Pixel Mirror functions, set values will be lost after switching the fixture off. In order to save the values to the fixture, go to DMX value of 237 and stay in it for 3 sec. The set values will be saved to the fixture and will not be lost by switching the fixture off and on.

**Reset to default** - The item sets items "Pixel Index" and "Pixel Mirror" to default (factory) values.

**Microphone Sensitivity** - Enter the menu if you want to adjust the microphone sensitivity from 1 (max.) to 20 (min.).

**Blackout Settings** - Use the menu if you need to close the light output under certain conditions which are described below

**Blackout DMC** - Blackout during movement correction. Set this option On if you wish to close light output during the time when the head goes to its correct position, which has been changed by an external force.

**Active Blackouts** - Use this menu if you wish to close the light output during effect changes.

**Pan/Tilt Moving** - The menu item enables to close light output while the pan/tilt coordinates are changing.

**White Point 8000K** - If the function is on, the CTC channel allows to set desired white in range of 8000K-2700K (0 DMX=8000K, 255 DMX=2700K). Necessary condition is, that RGBW channels have to be full or set at the same DMX values, e.g. 150.

If this function is off, the range of whites is not uniform and may be different for each fixture.

**Colour Mixing Mode** - This item allows switching into RGBW or CMY mode. In the CMY mode, the white(8bit)/white (16) bit channels are not active.

**Tungsten Effect Sim.** - This function simulates behaviour of a halogen lamp during dimming at calibrated whites 2700K, 3200K. You can select from various lamp wattage simulation: 750W, 1000W, 1200W, 2000W, 2500W.

**Dimmer Curve** - You can select desired dimmer curve: Linear or Square Law.

**LEDs Output Frequency** - The function allows you to set the PWM (Pulse Width Modulation) output frequency of LEDs to Standard (300Hz) or High (600Hz).

**LEDs Frequency Adjust** - The function allows you to change the selected PWM output frequency of LEDs in 6 levels up and down around the selected frequency in the menu "LEDs Output Frequency".

-1...-6 - Frequency levels 1 - 6 under selected frequency.

00 - Selected frequency (Standard or High)

1...6 - Frequency levels 1 - 6 above selected frequency.

**Init Effect Positions** - Use the menu to set all effects to the desired positions at which they will stay after switching the fixture on without DMX signal connected.

**Screen Settings** - Use this menu to change the touch screen settings.

**Display Intensity** - The item allows to control the intensity of the screen (1-min., 10-max.).

**Screen saver Delay** - The item allows you to keep the screen on or to turn it off automatically after 1-10 minutes after last touch (or pressing any button on the control panel).

**Touchscreen Lock** - The item allows you to lock the screen after last touch (or pressing any button on the control panel). The time delay can be set in range of 1-10 minutes. To unlock the screen, press the [ENTER/Display On] button.

**Recalibrate Touchscreen** - The item starts calibration of the touchscreen. Follow the instructions on the screen.

**Display Orientation** - The menu allows to change display orientation.

**Normal** - Standard display orientation if the fixture is placed horizontally (e.g. on the ground).

**Inverted** - This function rotates menu 180 degrees from current orientation.

**Auto** - The option activates a gravitation sensor for automatic screen orientation.

Note: **Auto** option is set as default. You change the display orientation by touching the icon  on the display, and the option set in the "Display Orientation" menu is temporarily overridden.

**Temperature unit** - Use the menu item to change temperature unit from °C to °F.

**Fan Mode** - Use the menu to set the fixture fans to max. power mode ("**High**") or to auto-control mode ("**Auto**"). The option "**Silent**" allows you to set desired fan noise. The light output of the fixture is reduced at low speeds of fans.

**Date & Time Settings** - Use this menu to set current date and time for the fixture log system (menu "View Logs"). Set this menu item before first fixture operation.

**Default Settings** - The menu item allows to set all fixture parameters to the default (factory) values.

## 7.4 Tab "Manual Control"



**Reset Functions** - The menu allows to reset the fixture either per function modules or all modules together.

**Total System Reset** - The item resets all function modules.

**Pan/Tilt Reset** - The item resets the pan and tilt movement.

**Zoom Reset** - The item resets the zoom module.

**Flower E. Reset** - The item resets the Flower effect.

**Manual Effect control** - Use the menu to control all fixture channels by means of the control panel.

## 7.5 Tab "Stand-alone"



**Test Sequences** - Use the menu to run a test/demo sequences without an external controller, which will show you some possibilities of using Robin Spider.

**Dynamic Mode** - This mode uses all Robin Spider functions including pan/tilt movement and therefore is good for a complete introduction of the fixture.

**Static Mode** - This mode is suitable for projections on the wall, ceiling or ground without any pan/tilt movement. Adjust the pan and tilt to desired positions and start test sequences by touching the green ► icon.

**Music Trigger** - Use the item to activate the sound control of the running program via the built-in microphone.

**Preset Playback** - This menu allows you to select the program which will be played in a loop after switching the fixture on (the option is commonly used in a stand-alone operation without an external controller).

**None** - The option disables "Presetting playback" function.

**Test** - The option starts the test sequences.

**Prog. 1** - The option starts user program No. 1.

**Prog. 2** - The option starts user program No. 2.

**Prog. 3** - The option starts user program No. 3.

**Play program** - Use the menu to run desired program in a loop.

**Play Program 1** - The option starts user program No.1.

**Play Program 2** - The option starts user program No. 2.

**Play Program 3** - The option starts user program No. 3.

**Edit Program** - Use the menu to create or to edit desired program. The Robin Spider offers 3 free programs, each up to 100 steps.

**Edit Program 1** - The option allows to edit user program No.1.

**Edit Program 2** - The option allows to edit user program No.2.

**Edit Program 3** - The option allows to edit user program No.3

To edit program:

1. Touch the item which you want to edit ("Edit Program 1" - "Edit Program 3").

2. Touch the item "Edit Program Steps".

3. Touch the item "Step 1".

4. From the list of effects touch desired effect and set its value. Browse through the list by touching the [up arrow] and [down arrow] and set all desired effects.

An item "Step Time" (value of 0-25.5 sec.) is the time during which effects last in the current step

5. Save adjusted effects to the current step by touching the [confirm] or save and copy them to the following step by touching the [confirm+copy]. By touching the text box "Preview" next to the current program step you can view created scene.

6. Repeat the steps 4 and 5 for next program steps.

7. After editing desired program steps, adjust the length of the program by touching the text boxes "Start Step" and "End Step".

Meaning of the icons used in the "Edit Program" menu:

⬇ - moves down on the next page

✓ - saves adjusted values and leaves menu

⬆ - moves up on the previous page

✓📄 - saves values to the current step and copy them to the following prog. step

✗ - leaves menu without saving values

## 7.6 Tab "Service"



**Adjust DMX Values** - The menu allows you to set all effects to desired positions before fine calibration of the effects .

**Calibrations** - This menu enables fine calibration of fixture effects and download default calibration values.

**Calibrate Effects** - The menu allows the fine adjustment of effects.

**Pan**- a pan position fine adjustment

**Tilt** - a tilt position fine adjustment

**FE Rotation** - a fine flower effect rotation

*Calibration of the effects via the control board*

1. Disconnect DMX controller from the fixture and enter the "Calibrate Effects" menu.

2. Use the [up arrow] and [down arrow] to find "Pan" and touch it to enter the fine effect adjustment screen.

3. Set desired value and save it by touching the [confirm].

4. Repeat steps 2 and 3 for next item

5. After calibrating all effects, touch the [confirm] to save all adjusted values and reset the fixture.

**Calibrate Colours** - The menu serves for adjusting of LEDs saturation to achieve uniform colours

The items **Red**, **Green**, **Blue** and **White** serve for adjustment of white 5600K.

*Calibration of white colour 5600K via the control board:*

1. Disconnect DMX controller from the fixture , open shutter and dimmer and set the CTC channel to DMX=64 (white 5600K), RGBW channels to 255 DMX and Zoom channel to 128 DMX.

2. Set the following items in the menu Personality:  
White Point 8000K =On  
Colour Mixing Mode=RGBW
3. Aim the light beam on the lux meter (e.g. Minolta CL-500A Chroma meter) which is placed at min. distance of 3 m from the fixture.
4. Enter the menu Calibrate Colours.
5. By means of the Red, green, Blue and White items adjust the 5600K colour temperature as exactly as possible ( $\Delta u'v' = 0$ ).
6. After adjusting 5600K colour temperature, touch the [confirm] to save all adjusted values and reset the fixture.

The items **Red Intensity**, **Green Intensity**, **Blue Intensity** and **White Intensity** serve for correction of intensity of red, green, blue and white colour on desired level (during fixture calibration in the factory).

**Pixel Correction** - The menu serves for colour calibration of fixture pixels in order to get uniform colours all over pixels.

Note: User can do the calibration of white 5600K only, other colour calibrations should be done in the factory.

**Calibrate Pan/Tilt EMS** - This menu item allows calibration of the pan/tilt electronic motion stabilizer. Important: during this calibration any external force must not influence the fixture and the surface at which the fixture stands (or truss if the fixture hangs) has to be without movement, shake, strokes etc.

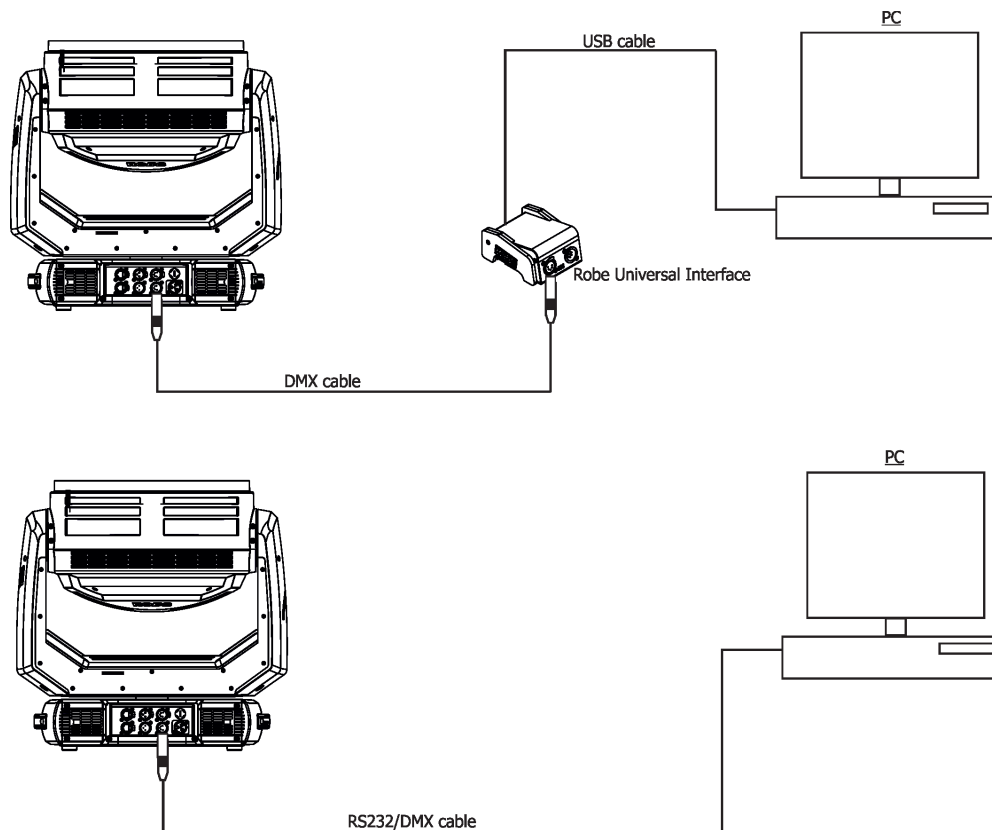
**Load Default Calibrations** - The item loads default (factory) calibration values.

**Update software** - The menu item allows you to update software in the fixture via either serial or USB port of PC. The following items are required in order to update software:

- PC running Windows or Linux or macOS
- DSU file
- Flash cable RS232/DMX (P/N13050624) or Robe Universal Interface / Robe Universal interface WTX.

To update software in the fixture:

1. DSU file is available from Robe web site at [WWW.robe.cz](http://WWW.robe.cz).  
File with extension zip is intended for Windows (used and tested from XP to W10 on 32/64bit systems).  
File with extension tbz is intended for Linux (used and tested on Debian and Ubuntu 32/64bit).  
File with extension dmg is intended for macOS (used and tested on OSX up to Sierra) XQuartz required, install it from <https://www.xquartz.org/>  
Save the download file to a folder on your computer.  
In case that you use windows, extract files in the zip file (e.g. DSU\_RobinSpiider\_18051835.zip)
2. Disconnect the fixture from DMX controller.
3. If you use the flash cable RS232/DMX, connect a serial port of your computer with DMX input of the fixture by means of the cable (probably you will need some USB to RS 232 converter if your computer has USB ports only).  
If you use the Robe Universal Interface, connect a USB port of your computer with the Robe Universal Interface by means of the USB cable and DMX input of the fixture with the DMX output of the Robe Universal Interface via a DMX cable.

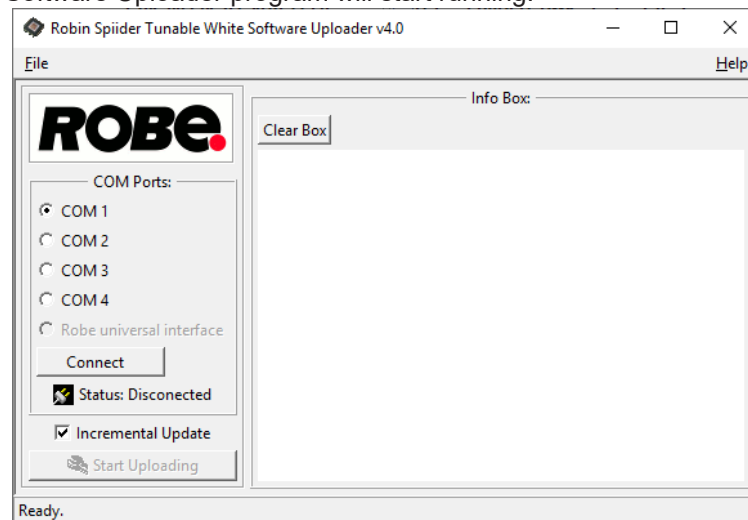


4. Switch the fixture to the update mode (Tab "Service" --> Update software).

Note: If you do not want to continue in the software update, you have to switch off and on the fixture to escape from the updating mode.

We recommend to cancel all running programs on your computer before starting the software uploader.

5. Double-click the software uploader file (e.g. DSU\_RobinSpiider\_18051835.exe) in the extracted files. The Software Uploader program will start running.



6. Select correct "COM " number if you use a Flash cable RS232/DMX or select "Robe Universal Interface 1 " if you use the Robe Universal Interface/Robe Universal Interface WTX and then click on the "Connect" button.

7. If the connection is OK, click the "Start Uploading" button to start software uploading. It will take several minutes to perform software update.

If the option "Incremental Update" is not checked, all processors will be updated (including processors with the same software version).

If you wish to update only processors with new version of software, check the "Incremental Update box".

Avoid interrupting the process. Update status is being displayed in the "Info Box" window.

When the update is finished, the line with the text "Fixture is successfully updated" will appear in this window.

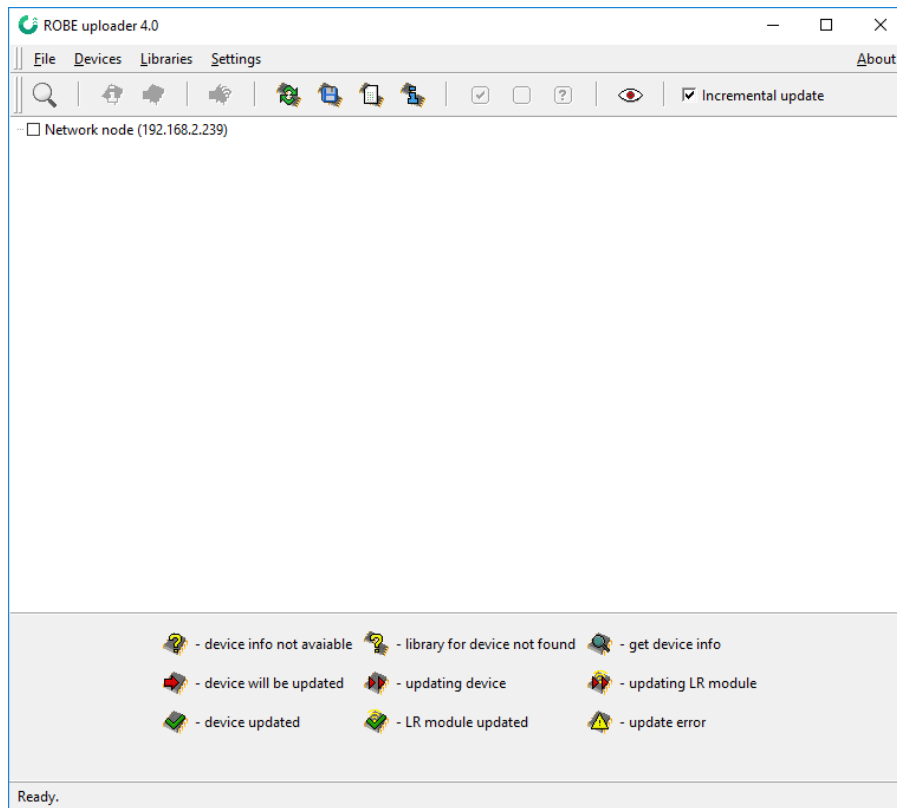
Note: After all processors updating, the fixture will be set to default values. If you use the Incremental update,

setting the fixture to default values depends on type of updated processors.

In case upload process is interrupted (e.g. power loss), the fixture stays in “Updating mode” and you will have to repeat the software update again.

Another way, how to update software in the fixtures (especially large installation of fixtures) is to use the ROBE Uploader. It is a software for automatized software update of Robe fixtures. It can take advantage of RDM support and Ethernet ports if present in the units.

For more information please see <https://www.robe.cz/robe-uploader/>.



## 8. RDM

This fixture supports RDM operation. RDM (Remote Device Management) is a bi-directional communications protocol for use in DMX512 control systems, it is the new open standard for DMX512 device configuration and status monitoring.

The RDM protocol allows data packets to be inserted into a DMX512 data stream without adversely affecting existing non-RDM equipment. By using a special „Start Code,“ and by complying with the timing specifications for DMX512, the RDM protocol allows a console or dedicated RDM controller to send commands to and receive messages from specific moving lights.

RDM allows explicit commands to be sent to a device and responses to be received from it.

The list of commands for Robin Spider is the following.

| Parameter ID             | Discovery command | SET command | GET command |
|--------------------------|-------------------|-------------|-------------|
| DISC_UNIQUE_BRANCH       | *                 |             |             |
| DISC_MUTE                | *                 |             |             |
| DISC_UN_MUTE             | *                 |             |             |
| DEVICE_INFO              |                   |             | *           |
| SUPPORTED_PARAMETERS     |                   |             | *           |
| SOFTWARE_VERSION_LABEL   |                   |             | *           |
| DMX_START_ADDRESS        |                   | *           | *           |
| IDENTIFY_DEVICE          |                   | *           | *           |
| DEVICE_MODEL_DESCRIPTION |                   |             | *           |

|                             |  |   |   |
|-----------------------------|--|---|---|
| MANUFACTURER_LABEL          |  |   | * |
| DEVICE_LABEL                |  | * | * |
| SENSOR_DEFINITION           |  |   | * |
| SENSOR_VALUE                |  |   | * |
| DISPLAY_INVERT              |  | * | * |
| DISPLAY_LEVEL               |  | * | * |
| PAN_INVERT                  |  | * | * |
| TILT_INVERT                 |  | * | * |
| DEVICE_RESET                |  | * |   |
| DMX_PERSONALITY             |  | * | * |
| DMX_PERSONALITY_DESCRIPTION |  |   | * |
| STATUS_MESSAGES             |  |   | * |
| STATUS_ID_DESCRIPTION       |  |   | * |
| DEVICE_HOURS <sup>2</sup>   |  |   | * |
| ROBE_DMX_INPUT              |  | * | * |
| ROBE_WIRELESS_UNLINK        |  | * |   |

<sup>2</sup>...Commands relative resetable values

RDM model ID for the Robin Spider is 0x00c5.

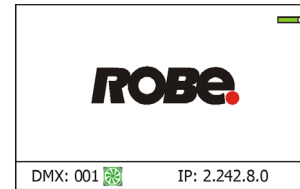
## 9. Error and information messages

### Information icon



#### - Air Filters Cleaning

This icon signalizes that cleaning period of the air filters has elapsed and you have to clear air filters and reset the menu item "Elapsed Time".



### Errors

Error in the fixture is signalled by the yellow warning icon at the bottom line of the screen:



Touch the warning icon or press the [ESCAPE] button to display error messages.

List of error and information messages:

#### Temper.Sensor Error

The message informs you that the communication between the head temperature sensor and the main processor failed.

#### Tilt Error 1 (*Tilt Error 2*)

This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet is missing) or the stepping motor is defective or its driving IC on the PCB. The head is not located in the default position after the reset.

#### Pan Error 1 (*Pan Error 2*)

This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunctions (sensor failed or magnet is missing) or the stepping motor is defective or its driving IC on the PCB. The yoke is not located in the default position after the reset of the fixture.

#### Zoom Error 1 (*Zoom Error 2*)

The messages will appear after the reset of the zoom module if the zoom module is not located in the default position.

#### Rod Error

The messages will appear after the reset of the flower effect if the rod is not in the default position.

#### EEprom Error

Hardware error of the EEprom.

#### Recharge The battery

The battery on the display board needs to be charged. Let the fixture on for cca 6 hrs.

#### Battery faulty. Replace it.

The battery on the display board is exhausted and should be replaced immediately.

#### Pan/Tilt EMS Cal. Error

The EMS system is not calibrated.

#### Pan/Tilt EMS Error

Control electronics cannot communicate with the EMS system.

#### Clean Air Filters

The message informs that the item "Elapsed Time" in the "Fixture Information" menu is at 0 value. Clean air filters and reset this counter.

## 10. Technical Specifications

### Electrical

Power supply:.....electronic auto-ranging  
Input voltage range:..... 100-240V, 50-60Hz  
Fuse:.....T 8 A  
Max. power consumption .....660W ( power factor= 0.99)

### Optic

Light source: 19 RGBW LED multichips  
RGBW or CMY colour mixing  
19 controllable LED multichips (pixels)  
LED life expectancy: min. 50.000 hours

### Virtual colour wheel

66 preset colours  
CTC in range of 2700K-8000K  
Halogen lamp effect at whites 2700K and 3200K  
Rainbow effect with in both directions with variable speed

### Zoom

Linear motorized zoom  
Min. beam angle: 4° (1/2 beam)  
Max. beam angle: 50°(1/10 beam)

### Effect

Flower effect rotating in both directions  
10 Flower effect macros

### Strobe

Strobe effect with variable speed (0.3 - 20Hz)

### Dimmer

Smooth dimmer from 0 - 100 %

### Control

Graphic touch screen for fixture setting and addressing  
Gravitation sensor for auto screen positioning  
Battery backup of the touch screen  
Readout fixture and LED module usage, receiving DMX values, temperatures, etc  
Built-in analyzer for easy fault finding, error messages  
Built-in demo sequences  
Individual pixel control of each LED  
Stand-alone operation  
3 user editable programs, each up to 100 steps  
Supported protocols: USITT DMX 512, RDM, ArtNet, MANet, MANet2, sACN, Kling-Net  
Support of RDM (Remote Device Management)  
10 DMX modes (49, 27, 33, 90, 27,47, 91,110,104,123 control channels)

### Wireless DMX/RDM module (only for Wireles DMX version)

Compliance with USITT DMX-512 (1986 & 1990) and 512-A  
Full DMX fidelity and frame integrity  
Auto sensing of DMX frame rate and frame size  
<5ms DMX latency  
Operational frequency range of 2402-2480 MHz  
Producer: LumenRadio

**Pan/Tilt**

Pan movement range 540°  
Tilt movement range 220°  
Continual pan/tilt rotation  
16 bit movement resolution  
Pan/Tilt electronic motion stabilizer  
Automatic Pan/Tilt position correction  
Remotely controllable speed of pan/tilt movement for easy programming  
Pan/tilt-lock mechanism

**Connection**

DMX data in/out: Locking 3-pin and 5-pin XLR  
AC power IN: Neutrik TrueOne NAC3MPX  
Ethernet IN/Out: RJ45

**Max. number of fixtures in Ethernet IN/Out line**

8

**Rigging**

Mounting points: 2 pairs of 1/4-turn locks  
Mounting horizontally or vertically via two Omega brackets

**Temperatures**

Maximum ambient temperature : 45° C  
Maximum housing temperature : 75° C

**Minimum distances**

Min. distance from flammable surfaces: 0.5 m  
Min. distance to lighted object: 1 m

**Total heat dissipation**

Max.1688 BTU/hr

**Ingress protection**

IP2x

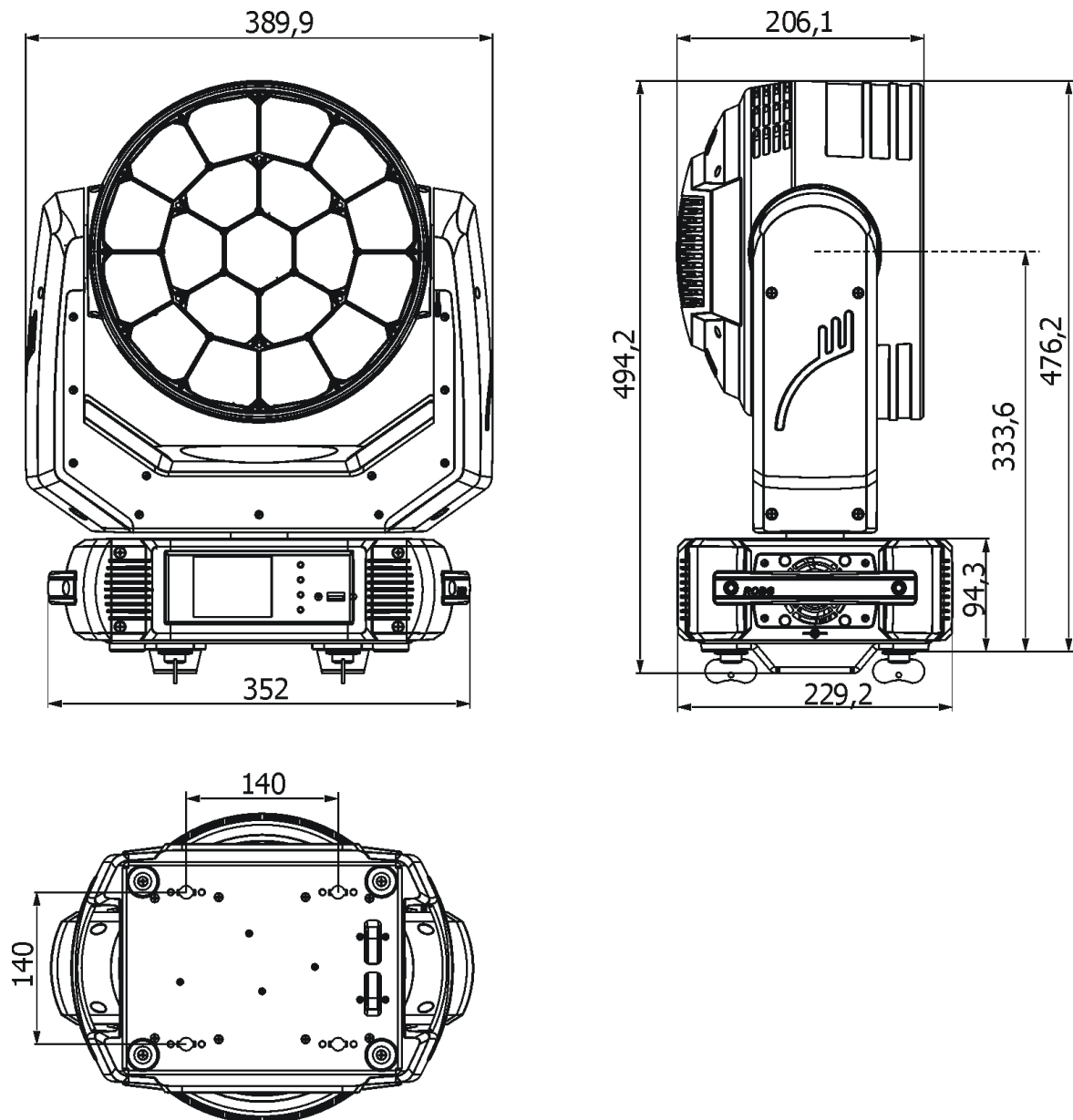
**Accessories**

1 x Omega adapter CL-regular 2 pcs in box (P/N 10980033)  
1 x power cable

**Weight (net)**

13.25 kg

## Dimensions (mm)



## Optional accessories

- Upgrade kit CRMX Universal 260 (P/N 99030100)
- EggCrate for Robin Spiider (P/N 10980317)
- Diffuser 2° for Robin Spiider (P/N 10980416)
- Doughty Trigger Clamp (P/N 17030386)
- Safety wire 35 kg (P/N 99011963)
- Clear lens cover Spiider (P/N 10980607)

## 11. Maintenance and cleaning

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on or within the fixture. Otherwise, the fixture's light output will be significantly reduced. Regular cleaning will not only ensure the maximum light output, but will also allow the fixture to function reliably throughout its life. A soft lint-free cloth moistened with any weak detergent solution is recommended for cleaning fixture's covers, under no circumstances should alcohol or solvents be used!

**DANGER !**  
***Disconnect from the mains before starting any maintenance and cleaning work***

The interior of the fixture should be cleaned at least annually using a vacuum cleaner or compressed air. The cooling fans should be cleaned at least twice a year.

**Important! Never use alcohols (ethanol, methanol, isopropyl alcohol), acetone and another aggressive solvents for cleaning the front lens array. Do not immerse lenses in liquid (e.g. water) during cleaning.**

Recommended steps for cleaning the front lens array:

1. Use low-pressure compressed air to remove coarse dust from lenses.
2. Use distilled water with weak detergent solution and lint-free small cloth for further cleaning of lenses.
3. Use an antistatic, alcohol-free screen cleaner (we recommend the Lyreco Screen Cleaner) and polish lenses until they are dry.
4. Check the lenses are dry before reapplying power.

Note: potential foggy front lens array does not influence function of the fixture and does not subject to complaint

**Check the air filter periodically and clean before they become clogged!**

Periodically clean air filter placed in the fixture's base. The air filter cover is fastened by means of magnets. Use a vacuum cleaner, compressed air or you can wash them and put back dry. After replacing the air filters, reset the elapsed time counter in the menu "Information" (Information--->Air Filters--->Elapsed Time).

### Replacing the fuse.

Before replacing the fuse, unplug mains lead.

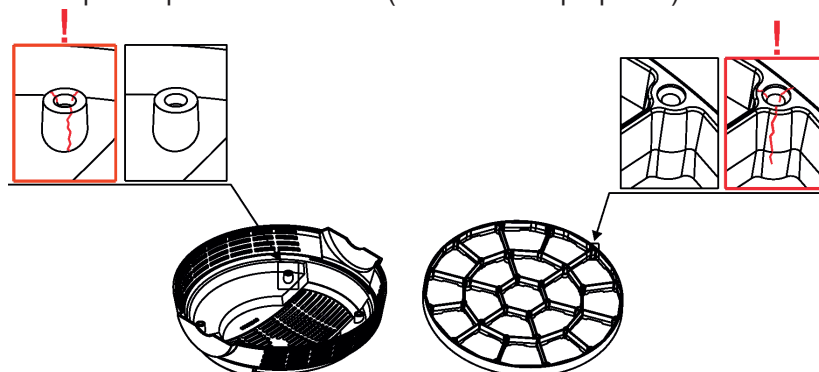
1. Remove the fuse holder on the rear panel of the base with a fitting screwdriver from the housing (anti-clockwise).
2. Remove the old fuse from the fuse holder.
3. Install the new fuse in the fuse holder (only the same type and rating).
4. Replace the fuseholder in the housing and fix it.

### Checking plastic parts of the fixture.

The plastic parts of the fixture should be checked for damages and beginning cracks at least every two months. If hint of a crack is found on some plastic part, do not use the fixture until the damaged part will be replaced. Cracks or another damages of the plastic parts can be caused by the fixture transportation or manipulation and also ageing process may influence plastic materials.

This checking is necessary for both fixed installations and preparing fixtures for renting. Any free moving parts inside of the fixture head, cracked plastic or any plastic part not sitting properly in place need to be immediately replaced.

Example of cracks in the plastic parts of the fixture (for illustrative purposes).

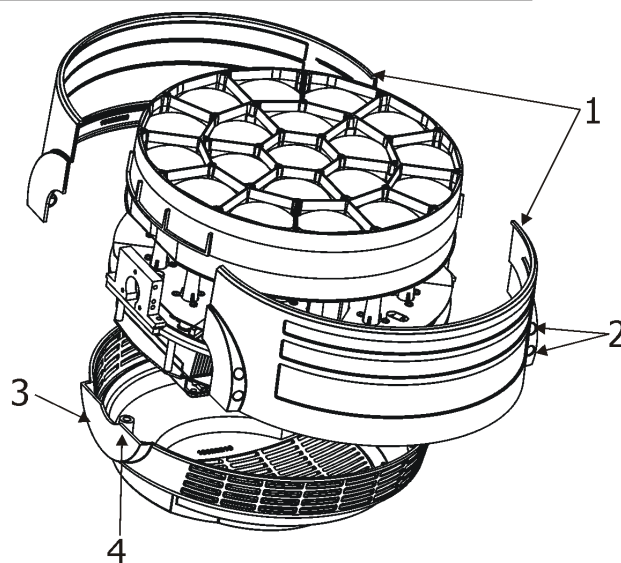


## 11.1 Removing the optical module

*The following instructions are intended for service purposes only.*

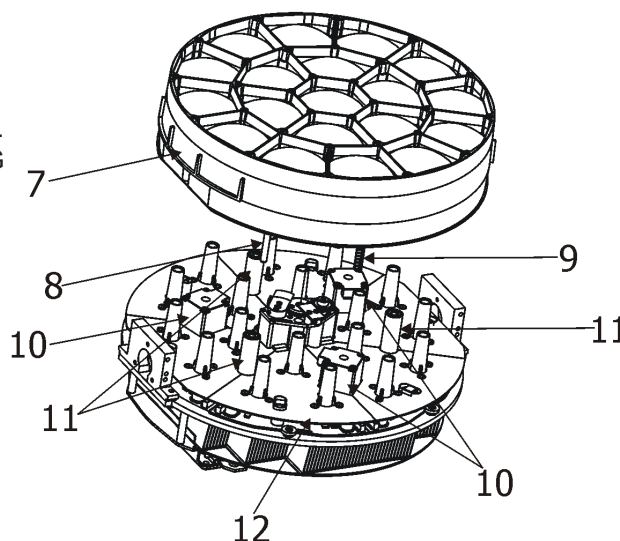
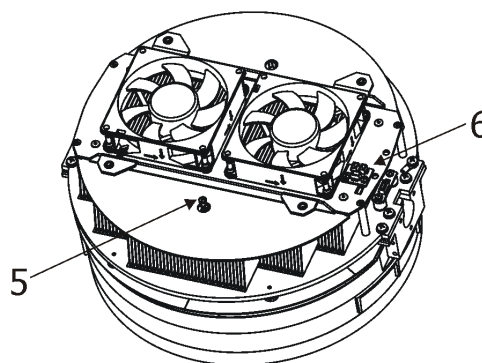
### To remove the optical module

1. Disconnect the fixture from mains.
2. Loosen the four fastening screws (2) on each side of the head covers (1) to remove the covers.
3. Loosen the four fastening screws (4) on back cover of the head (3)
4. Unscrew the securing screw (5) from the guide-pin. Its position is shown on the picture (the fan connecting PCB (6) has to be on the right from the securing screw (5)).  
If you do not have access to the securing screw, push the optical module (7) towards the fans. Do not touch the plastic lenses bare hands.  
**DO NOT FORGET TO UNSCREW THIS SECURING SCREW (5)!**
5. Carefully take the optical module (7) out of the guide-tubes (11) and motors (10).



### To insert the optical module back

1. Connect the fixture to mains and after fixture reset go to tab Manual Control, select item Zoom and set it at 255 DMX.
2. Put the optical module (7) on the LED module (12) in such a way that three guide-pins (8) aim into guide-tubes (11) and three lead screws (9) aim into motors (10).
3. Hold the optical module in this position and slowly change the item Zoom from 255 DMX to 0 DMX. Motors "draw" the optical module to the LED module (12).  
**DO NOT TRY TO INSERT THE OPTICAL MODULE BY A FORCE.**
4. Run the Zoom Reset from tab Manual Control or disconnect/connect the fixture to mains.
5. Disconnect the fixture from mains.
6. Screw the securing screw (5) back to the guide-pin.  
**DO NOT FORGET TO SCREW THIS SECURING SCREW (5)!**
7. Screw covers on the fixture head.



## 11.2 Disposing of the product

To preserve the environment please dispose or recycle this product at the end of its life according to the local regulations and codes.

## 12. ChangeLog

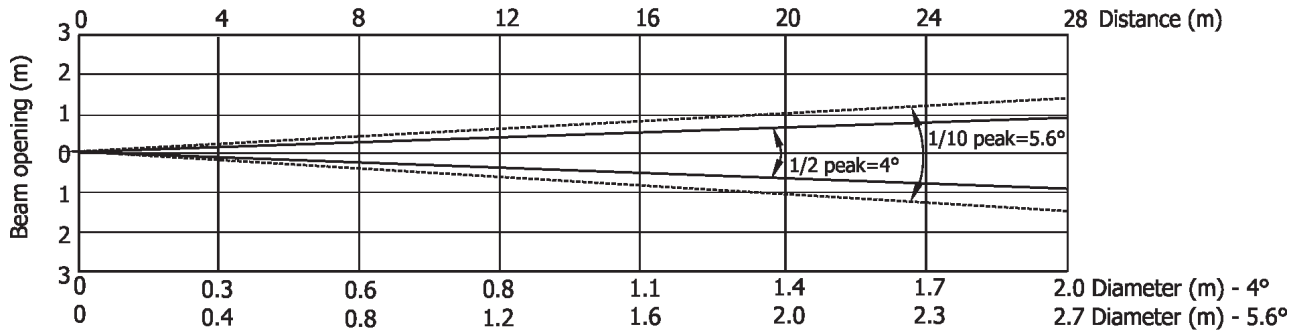
This section summarizes all types of changes in the user manual.

| Version of the manual | Date of issue | Description of changes                                                      |
|-----------------------|---------------|-----------------------------------------------------------------------------|
| 1.1                   | 16/12/2016    | DMX protocol ver. 1.3 (added 6 DMX modes)                                   |
| 1.2                   | 24/01/2017    | Added Eggcrate installation                                                 |
| 1.3                   | 10/02/2017    | DMX protocol ver. 1.4 (Pattern crossfade channel added)                     |
| 1.4                   | 27/02/2017    | DMX protocol ver.1.5                                                        |
| 1.5                   | 24/03/2017    | DMX protocol ver.1.6                                                        |
| 1.6                   | 20/10/2017    | DMX protocol 1.7 (Parking position, Pixel index, Pixel mirror on Power ch.) |
| 1.7                   | 1/11/2017     | Item Pixel control added to menu Personality                                |
| 1.8                   | 7/11/2017     | DMX protocol 1.8 (Saving Pixel Index and pixel mirror to fixture)           |
| 1.9                   | 07/12/2017    | 2° Diffuser added to Optional Accessories                                   |
| 2.0                   | 15/01/2018    | Optional accessories changed                                                |
| 2.1                   | 20/03/2018    | Installation of the diffuser added                                          |
| 2.2                   | 26/04/2018    | DMX protocol 1.9                                                            |
| 2.3                   | 03/06/2019    | DMX protocol 2.0 (Leds PWM output frequency added on Power channel )        |
| 2.4                   | 03/07/2019    | Check of plastic added (chapter Maintenance and cleaning)                   |
| 2.5                   | 18/09/2019    | DMX protocol 2.1 (RoboSpot support added)                                   |
| 2.6                   | 11/11/2019    | Description of lenses cleaning added                                        |
| 2.7                   | 18/04/2020    | DMX protocol v. 2.2 (pixel effects modified)                                |
| 2.8                   | 28/07/2020    | DMX protocol v. 2.3 (silent mode added)                                     |
| 2.9                   | 15/10/2020    | Added information about foggy lens array                                    |
| 3.0                   | 24/06/2021    | BTU/h value changed                                                         |
| 3.1                   | 28/01/2022    | Number of fixtures in Ethernet IN-OUT line changed at 8.                    |
| 3.2                   | 19/01/2022    | Diffuser installation changed                                               |
| 3.3                   | 02/03/2023    | Pixel calibration added                                                     |

## 13. Photometric diagrams

### Min. Zoom

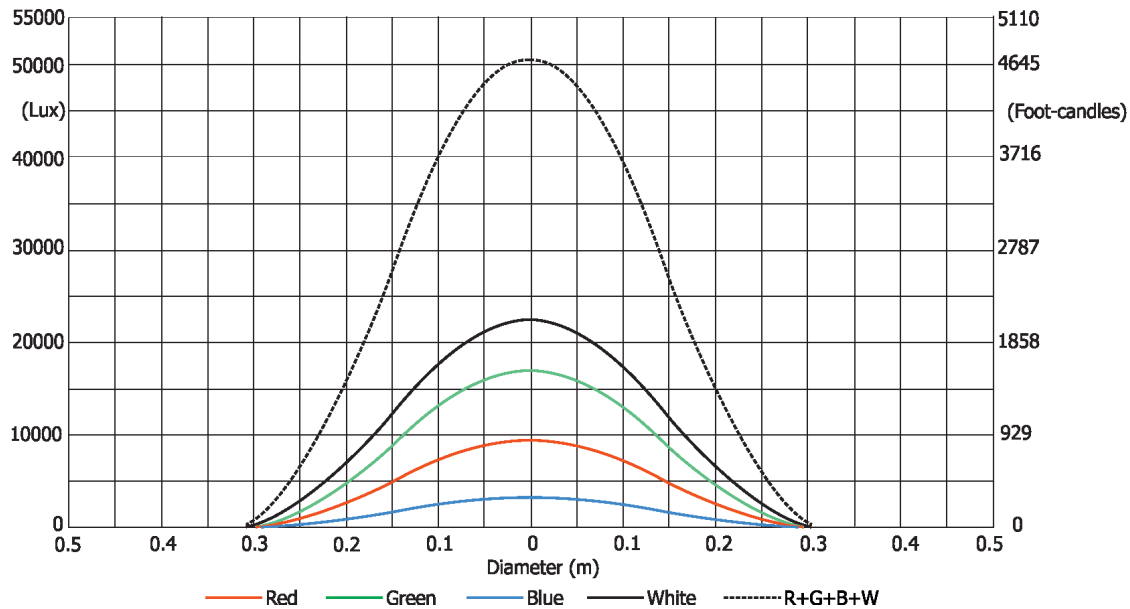
Total Output: 5500 lumens



| Distance (m) | 4          | 5          | 8          | 12       | 16       | 20       | 24       | 28       |                                       |
|--------------|------------|------------|------------|----------|----------|----------|----------|----------|---------------------------------------|
| Red          | 14560/1353 | 9320/866   | 3640/338   | 1618/150 | 910/85   | 582/54   | 405/38   | 297/28   | Intensity (center)<br>Lux/Footcandles |
| Green        | 25500/2369 | 16320/1516 | 6375/592   | 2833/263 | 1594/148 | 1020/95  | 708/66   | 520/48   |                                       |
| Blue         | 4922/457   | 3150/293   | 1230/114   | 547/51   | 308/29   | 197/18   | 137/13   | 100/9    |                                       |
| White        | 35031/3254 | 22420/2082 | 8757/814   | 3892/362 | 2190/203 | 1400/130 | 967/90   | 714/44   |                                       |
| R+G+B+W      | 78280/7273 | 50100/4654 | 19570/1818 | 8698/808 | 4893/455 | 3130/291 | 2175/202 | 1598/148 |                                       |

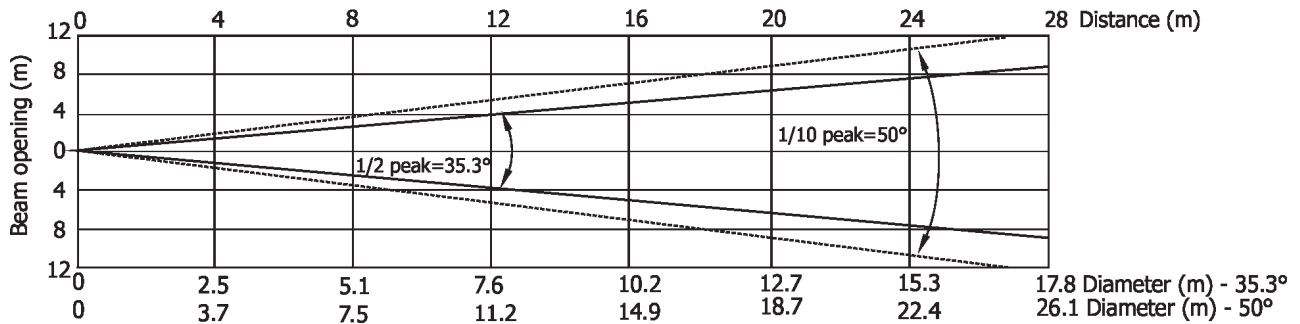
### Illuminance distribution

Distance=5m



## Max. Zoom

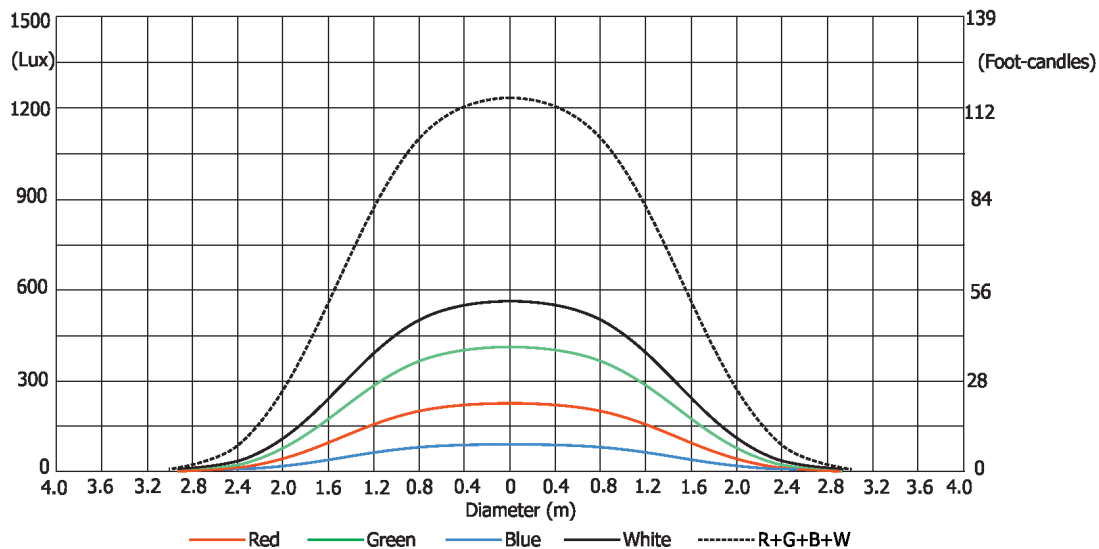
Total Output: 11000 lumens



| Distance (m) | 4        | 5        | 8      | 12     | 16     | 20     | 24     | 28      |                                       |
|--------------|----------|----------|--------|--------|--------|--------|--------|---------|---------------------------------------|
| Red          | 367/34   | 235/22   | 92/9   | 40/4   | 23/2   | 15/1.4 | 10/0.9 | 8/0.7   | Intensity (center)<br>Lux/Footcandles |
| Green        | 656/61   | 420/39   | 164/15 | 73/7   | 41/3.8 | 26/2.4 | 18/1.7 | 13/1.2  |                                       |
| Blue         | 133/12   | 85/8     | 33/3   | 15/1.4 | 8/0.8  | 5/0.5  | 4/0.3  | 2.7/0.3 |                                       |
| White        | 890/83   | 570/53   | 222/21 | 99/9   | 56/5   | 36/3.3 | 25/2.3 | 18/1.7  |                                       |
| R+G+B+W      | 1953/182 | 1250/116 | 488/45 | 217/20 | 122/11 | 78/7   | 54/5   | 40/3.7  |                                       |

## Illuminance distribution

Distance=5m



March 3, 2023

Copyright © 2016-2023 Robe Lighting - All rights reserved

All Specifications subject to change without notice

Made in CZECH REPUBLIC by ROBE LIGHTING s.r.o. Palackeho 416/20 CZ 75701 Valasske Mezirici



## 14. Appendix - DMX modes overview

Pixel modes underlined

| Mode                  | DMX Channels | Main Features                                                                                                                                                                                                                                                                                  |
|-----------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mode 1</b>         | 49           | 16-bit pan/tit<br>Control of three rings separately<br>16-bit control of four colours (R,G,B,W) on each LED ring<br>16-bit Dimmer<br>Pixel effect control (shape,speed, fade)<br>Flower effect control<br>Without control of individual pixels                                                 |
| <b>Mode 2</b>         | 27           | 16-bit pan/tit<br>Circle active zone<br>8-bit control of four colours (R,G,B,W) and Dimmer<br>Pixel effect control (shape,speed, fade)<br>Flower effect control<br>Without control of individual pixels                                                                                        |
| <b>Mode 3</b>         | 33           | 16-bit pan/tit<br>Circle active zone<br>16-bit control of four colours (R,G,B,W) and Dimmer<br>Pixel effect control (shape,speed, fade)<br>Flower effect control<br>Without control of individual pixels                                                                                       |
| <b><u>Mode 4</u></b>  | 90           | 16-bit pan/tit<br>Circle active zone<br>16-bit control of four individual colours (R,G,B,W) and Dimmer<br>Pixel effect control (shape,speed, fade)<br>Flower effect<br>Individual pixels control (R,G,B)                                                                                       |
| <b>Mode 5</b>         | 27           | 16-bit pan/tit<br>Selection of active zone (rings, sectors)<br>8-bit control of four individual colours (R,G,B,W) and Dimmer<br>Flower effect control<br>Without control of individual pixels.                                                                                                 |
| <b>Mode 6</b>         | 47           | 16-bit pan/tit<br>Selection of active zone (rings, sectors)<br>16-bit control of four individual colours (R,G,B,W) and Dimmer<br>Pixel patterns control (shape, repeat/size, rotation, transition, fade, crossfade, colour)<br>Flower effect control<br>Without control of individual pixels   |
| <b><u>Mode 7</u></b>  | 91           | 16-bit pan/tit<br>Selection of active zone (rings, sectors)<br>16-bit control of four individual colours (R,G,B,W) and Dimmer<br>Flower effect control<br>Individual control of pixels (R,G,B)                                                                                                 |
| <b><u>Mode 8</u></b>  | 110          | 16-bit pan/tit<br>Selection of active zone (rings, sectors)<br>16-bit control of four individual colours (R,G,B,W) and Dimmer<br>Flower effect control<br>Individual control of pixels (R,G,B,W)                                                                                               |
| <b><u>Mode 9</u></b>  | 104          | 16-bit pan/tit<br>Selection of active zone (rings, sectors)<br>16-bit control of four individual colours (R,G,B,W) and Dimmer<br>Pixel patterns control (shape, repeat/size, rotation, transition, fade, crossfade, colour)<br>Flower effect control<br>Individual control of pixels (R,G,B)   |
| <b><u>Mode 10</u></b> | 123          | 16-bit pan/tit<br>Selection of active zone (rings, sectors)<br>16-bit control of four individual colours (R,G,B,W) and Dimmer<br>Pixel patterns control (shape, repeat/size, rotation, transition, fade, crossfade, colour)<br>Flower effect control<br>Individual control of pixels (R,G,B,W) |

| Robin SPIIDER - DMX protocol                                                                                             |   |   |   |           |                                                                                                                                                                                                                                                                        |                 |  |
|--------------------------------------------------------------------------------------------------------------------------|---|---|---|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|--|
| Version: 2.3 (10 modes) <b>Mode 1</b> - 3-zones, <b>Mode 2</b> -Basic, <b>Mode 3</b> -Advanced, <b>Mode 4</b> -Full RGBW |   |   |   |           |                                                                                                                                                                                                                                                                        |                 |  |
| Mode/channel                                                                                                             |   |   |   | DMX Value | Function                                                                                                                                                                                                                                                               | Type of control |  |
| 1                                                                                                                        | 2 | 3 | 4 |           |                                                                                                                                                                                                                                                                        |                 |  |
| 1                                                                                                                        | 1 | 1 | 1 |           | <b>Pan (8 bit)</b>                                                                                                                                                                                                                                                     |                 |  |
|                                                                                                                          |   |   |   | 0 - 255   | Pan movement by 540° (128=default)                                                                                                                                                                                                                                     | proportional    |  |
| 2                                                                                                                        | 2 | 2 | 2 |           | <b>Pan Fine (16 bit)</b>                                                                                                                                                                                                                                               |                 |  |
|                                                                                                                          |   |   |   | 0 - 255   | Fine control of pan movement (0=default)                                                                                                                                                                                                                               | proportional    |  |
| 3                                                                                                                        | 3 | 3 | 3 |           | <b>Tilt (8 bit)</b>                                                                                                                                                                                                                                                    |                 |  |
|                                                                                                                          |   |   |   | 0 - 255   | Tilt movement by 220° (128=default)                                                                                                                                                                                                                                    | proportional    |  |
| 4                                                                                                                        | 4 | 4 | 4 |           | <b>Tilt fine (16 bit)</b>                                                                                                                                                                                                                                              |                 |  |
|                                                                                                                          |   |   |   | 0 - 255   | Fine control of tilt movement (0=default)                                                                                                                                                                                                                              | proportional    |  |
| 5                                                                                                                        | 5 | 5 | 5 |           | <b>Pan/Tilt speed , Pan/Tilt time</b>                                                                                                                                                                                                                                  |                 |  |
|                                                                                                                          |   |   |   | 0         | Standard mode (0=default)                                                                                                                                                                                                                                              | step            |  |
|                                                                                                                          |   |   |   | 1         | Max. Speed Mode                                                                                                                                                                                                                                                        | step            |  |
|                                                                                                                          |   |   |   |           | <b>Pan/Tilt speed mode</b>                                                                                                                                                                                                                                             |                 |  |
|                                                                                                                          |   |   |   | 2 - 255   | Speed from max. to min.                                                                                                                                                                                                                                                | proportional    |  |
|                                                                                                                          |   |   |   |           | <b>Pan/Tilt time mode</b>                                                                                                                                                                                                                                              |                 |  |
|                                                                                                                          |   |   |   | 2 - 255   | Time from 0.2 s to 25.5 sec.                                                                                                                                                                                                                                           | proportional    |  |
| 6                                                                                                                        | 6 | 6 | 6 |           | <b>Power/Special functions</b>                                                                                                                                                                                                                                         |                 |  |
|                                                                                                                          |   |   |   | 0 -9      | Reserved (0=default)                                                                                                                                                                                                                                                   |                 |  |
|                                                                                                                          |   |   |   |           | <i>To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Shutter,Strobe“ channel 53/27/31/31 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden (unless otherwise stated)</i> |                 |  |
|                                                                                                                          |   |   |   | 10-14     | DMX input: Wired DMX                                                                                                                                                                                                                                                   | step            |  |
|                                                                                                                          |   |   |   | 15-19     | DMX input: Wireless DMX *                                                                                                                                                                                                                                              | step            |  |
|                                                                                                                          |   |   |   | 20-24     | Graphic display ON                                                                                                                                                                                                                                                     | step            |  |
|                                                                                                                          |   |   |   | 25-29     | Graphic display OFF                                                                                                                                                                                                                                                    | step            |  |
|                                                                                                                          |   |   |   | 30-34     | RGBW colour mixing mode                                                                                                                                                                                                                                                | step            |  |
|                                                                                                                          |   |   |   | 35-39     | CMY colour mixing mode                                                                                                                                                                                                                                                 | step            |  |
|                                                                                                                          |   |   |   | 40-44     | Pan/Tilt speed mode                                                                                                                                                                                                                                                    | step            |  |
|                                                                                                                          |   |   |   | 45 - 49   | Pan/Tilt time mode                                                                                                                                                                                                                                                     | step            |  |
|                                                                                                                          |   |   |   | 50 -54    | Blackout while pan/tilt moving                                                                                                                                                                                                                                         | step            |  |
|                                                                                                                          |   |   |   | 55 -59    | Disabled blackout while pan/tilt moving                                                                                                                                                                                                                                | step            |  |
|                                                                                                                          |   |   |   | 60 - 64   | Dimmer curve-square law                                                                                                                                                                                                                                                | step            |  |
|                                                                                                                          |   |   |   | 65 - 69   | Dimmer curve-linear                                                                                                                                                                                                                                                    | step            |  |
|                                                                                                                          |   |   |   | 70 - 74   | Fans mode: Auto                                                                                                                                                                                                                                                        | step            |  |
|                                                                                                                          |   |   |   | 75 - 79   | Fans mode: High                                                                                                                                                                                                                                                        | step            |  |
|                                                                                                                          |   |   |   | 80-84     | White point 8000K ON                                                                                                                                                                                                                                                   | step            |  |
|                                                                                                                          |   |   |   | 85-89     | White point 8000K OFF                                                                                                                                                                                                                                                  | step            |  |
|                                                                                                                          |   |   |   | 90 -109   | Reserved                                                                                                                                                                                                                                                               |                 |  |
|                                                                                                                          |   |   |   | 110-114   | Kling-Net On                                                                                                                                                                                                                                                           | step            |  |
|                                                                                                                          |   |   |   | 115-119   | Kling-Net Off                                                                                                                                                                                                                                                          | step            |  |
|                                                                                                                          |   |   |   | 120-124   | Parking position On                                                                                                                                                                                                                                                    | step            |  |
|                                                                                                                          |   |   |   | 125-129   | Parking position Off                                                                                                                                                                                                                                                   | step            |  |
|                                                                                                                          |   |   |   |           | <i>To activate following functions, stop in DMX value for at least 3 seconds (except function Pixel index and Pixel Mirror). Corresponding menu items are temporarily overridden</i>                                                                                   |                 |  |

# DMX protocol

|   |   |   |   |           |                                                                                                                                                                           |              |
|---|---|---|---|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
|   |   |   |   | 130 - 139 | Fixture reset (except pan/tilt)                                                                                                                                           |              |
|   |   |   |   | 140 - 149 | Pan/Tilt reset                                                                                                                                                            | step         |
|   |   |   |   | 150 - 159 | Zoom reset                                                                                                                                                                | step         |
|   |   |   |   | 160 - 169 | Flower effect reset                                                                                                                                                       | step         |
|   |   |   |   | 170-171   | Tungsten effect simulation (750W) On **                                                                                                                                   | step         |
|   |   |   |   | 172-173   | Tungsten effect simulation (1000W) On **                                                                                                                                  | step         |
|   |   |   |   | 174-175   | Tungsten effect simulation (1200W) On **                                                                                                                                  | step         |
|   |   |   |   | 176-177   | Tungsten effect simulation (2000W) On **                                                                                                                                  | step         |
|   |   |   |   | 178-179   | Tungsten effect simulation (2500W) On **                                                                                                                                  | step         |
|   |   |   |   | 180-181   | Tungsten effect simulation Off                                                                                                                                            | step         |
|   |   |   |   | 182-184   | Reserved                                                                                                                                                                  |              |
|   |   |   |   | 185       | PWM output frequency of LEDS: Standard (300Hz)****                                                                                                                        | step         |
|   |   |   |   | 186       | PWM output frequency of LEDS: High (600Hz)****                                                                                                                            | step         |
|   |   |   |   |           | **** You can adjust selected frequency in 6 steps Up or Down around selected frequency - see table below . Default value of PWM frequency set in the fixture is Standard. |              |
|   |   |   |   | 187       | LED Frequency (step -6)                                                                                                                                                   | step         |
|   |   |   |   | 188       | LED Frequency (step -5)                                                                                                                                                   | step         |
|   |   |   |   | 189       | LED Frequency (step -4)                                                                                                                                                   | step         |
|   |   |   |   | 190       | LED Frequency (step -3)                                                                                                                                                   | step         |
|   |   |   |   | 191       | LED Frequency (step -2)                                                                                                                                                   | step         |
|   |   |   |   | 192       | LED Frequency (step -1)                                                                                                                                                   | step         |
|   |   |   |   | 193       | LED Frequency (Standard or High)                                                                                                                                          | step         |
|   |   |   |   | 194       | LED Frequency (step +1)                                                                                                                                                   | step         |
|   |   |   |   | 195       | LED Frequency (step +2)                                                                                                                                                   | step         |
|   |   |   |   | 196       | LED Frequency (step +3)                                                                                                                                                   | step         |
|   |   |   |   | 197       | LED Frequency (step +4)                                                                                                                                                   | step         |
|   |   |   |   | 198       | LED Frequency (step +5)                                                                                                                                                   | step         |
|   |   |   |   | 199       | LED Frequency (step +6)                                                                                                                                                   | step         |
|   |   |   |   | 200 - 209 | Total fixture reset                                                                                                                                                       | step         |
|   |   |   |   | 210 - 221 | Pixel index                                                                                                                                                               | proportional |
|   |   |   |   | 222 - 223 | Pixel mirror On                                                                                                                                                           | step         |
|   |   |   |   | 224 - 225 | Pixel mirror Off                                                                                                                                                          | step         |
|   |   |   |   | 226 - 236 | Reserved                                                                                                                                                                  |              |
|   |   |   |   | 237       | Save Pixel index and mirror to fixture                                                                                                                                    | step         |
|   |   |   |   |           | The following RoboSpot related commands are only applicable when the RoboSpot is connected:                                                                               |              |
|   |   |   |   | 238 - 239 | RoboSpot enabled                                                                                                                                                          | step         |
|   |   |   |   | 240 - 241 | RoboSpot disabled - except handle faders and pan/tilt                                                                                                                     | step         |
|   |   |   |   | 242 - 243 | RoboSpot fully disabled                                                                                                                                                   | step         |
|   |   |   |   | 244       | Disabled "Silent mode"                                                                                                                                                    | step         |
|   |   |   |   | 245 - 255 | Silent mode - fan noise control from min. to max.                                                                                                                         | proportional |
| 7 | 7 | 7 | 7 |           | <b>Virtual colour wheel</b>                                                                                                                                               |              |
|   |   |   |   | 0         | No function (0=default)                                                                                                                                                   | step         |
|   |   |   |   | 1-2       | Filter 4 (Medium Bastard Amber)                                                                                                                                           | step         |
|   |   |   |   | 3-4       | Filter 25 (Sunset Red)                                                                                                                                                    | step         |
|   |   |   |   | 5-6       | Filter 19 (Fire)                                                                                                                                                          | step         |
|   |   |   |   | 7-8       | Filter 26 (Bright Red)                                                                                                                                                    | step         |
|   |   |   |   | 9-10      | Filter 58 (Lavender)                                                                                                                                                      | step         |
|   |   |   |   | 11-12     | Filter 68 (Sky Blue)                                                                                                                                                      | step         |
|   |   |   |   | 13-14     | Filter 36 (Medium Pink)                                                                                                                                                   | step         |

# DMX protocol

|  |  |  |  |         |                                  |      |
|--|--|--|--|---------|----------------------------------|------|
|  |  |  |  | 15-16   | Filter 89 (Moss Green)           | step |
|  |  |  |  | 17-18   | Filter 88 (Lime Green)           | step |
|  |  |  |  | 19-20   | Filter 90 (Dark Yellow Green)    | step |
|  |  |  |  | 21-22   | Filter 49 (Medium Purple)        | step |
|  |  |  |  | 23-24   | Filter 52 (Light Lavender)       | step |
|  |  |  |  | 25-26   | Filter 102 (Light Amber)         | step |
|  |  |  |  | 27-28   | Filter 103 (Straw)               | step |
|  |  |  |  | 29-30   | Filter 140 (Summer Blue)         | step |
|  |  |  |  | 31-32   | Filter 124 (Dark Green)          | step |
|  |  |  |  | 33-34   | Filter 106 (Primary Red)         | step |
|  |  |  |  | 35-36   | Filter 111 (Dark Pink)           | step |
|  |  |  |  | 37-38   | Filter 115 (Peacock Blue)        | step |
|  |  |  |  | 39-40   | Filter 126 (Mauve)               | step |
|  |  |  |  | 41-42   | Filter 117 (Steel Blue)          | step |
|  |  |  |  | 43-44   | Filter 118 (Light Blue)          | step |
|  |  |  |  | 45-46   | Filter 122 (Fern Green)          | step |
|  |  |  |  | 47-48   | Filter 182 (Light Red)           | step |
|  |  |  |  | 49-50   | Filter 121 (Filter Green)        | step |
|  |  |  |  | 51-52   | Filter 128 (Bright Pink)         | step |
|  |  |  |  | 53-54   | Filter 131 (Marine Blue)         | step |
|  |  |  |  | 55-56   | Filter 132 (Medium Blue)         | step |
|  |  |  |  | 57-58   | Filter 134 (Golden Amber)        | step |
|  |  |  |  | 59-60   | Filter 135 (Deep Golden Amber)   | step |
|  |  |  |  | 61-62   | Filter 136 (Pale Lavender)       | step |
|  |  |  |  | 63-64   | Filter 137 (Special Lavender)    | step |
|  |  |  |  | 65-66   | Filter 138 (Pale Green)          | step |
|  |  |  |  | 67-68   | Filter 798 (Chrysalis Pink)      | step |
|  |  |  |  | 69-70   | Filter 141 (Bright Blue)         | step |
|  |  |  |  | 71-72   | Filter 147 (Apricot)             | step |
|  |  |  |  | 73-74   | Filter 148 (Bright Rose)         | step |
|  |  |  |  | 75-76   | Filter 152 (Pale Gold)           | step |
|  |  |  |  | 77-78   | Filter 154 (Pale Rose)           | step |
|  |  |  |  | 79-80   | Filter 157 (Pink)                | step |
|  |  |  |  | 81-82   | Filter 143 (Pale Navy Blue)      | step |
|  |  |  |  | 83-84   | Filter 162 (Bastard Amber)       | step |
|  |  |  |  | 85-86   | Filter 164 (Flame Red)           | step |
|  |  |  |  | 87-88   | Filter 165 (Daylight Blue)       | step |
|  |  |  |  | 89-90   | Filter 169 (Lilac Tint)          | step |
|  |  |  |  | 91-92   | Filter 170 (Deep Lavender)       | step |
|  |  |  |  | 93-94   | Filter 172 (Lagoon Blue)         | step |
|  |  |  |  | 95-96   | Filter 194 (Surprise Pink)       | step |
|  |  |  |  | 97-98   | Filter 180 (Dark Lavender)       | step |
|  |  |  |  | 99-100  | Filter 181 (Congo Blue)          | step |
|  |  |  |  | 101-102 | Filter 197 (Alice Blue)          | step |
|  |  |  |  | 103-104 | Filter 201 (Full C.T. Blue)      | step |
|  |  |  |  | 105-106 | Filter 202 (Half C.T. Blue)      | step |
|  |  |  |  | 107-108 | Filter 203 (Quarter C.T. Blue)   | step |
|  |  |  |  | 109-110 | Filter 204 (Full C.T. Orange)    | step |
|  |  |  |  | 111-112 | Filter 219 (Fluorescent Green)   | step |
|  |  |  |  | 113-114 | Filter 206 (Quarter C.T. Orange) | step |

# DMX protocol

|    |    |    |    |         |                                                         |              |
|----|----|----|----|---------|---------------------------------------------------------|--------------|
|    |    |    |    | 115-116 | Filter 247 (Filter Minus Green)                         | step         |
|    |    |    |    | 117-118 | Filter 248 (Half Minus Green)                           | step         |
|    |    |    |    | 119-120 | Filter 281 (Three Quarter C.T. Blue)                    | step         |
|    |    |    |    | 121-122 | Filter 285 (Three Quarter C.T. Orange)                  | step         |
|    |    |    |    | 123-124 | Filter 352 (Glacier Blue)                               | step         |
|    |    |    |    | 125-126 | Filter 353 (Lighter Blue)                               | step         |
|    |    |    |    | 127-128 | Filter 507 (Madge)                                      | step         |
|    |    |    |    | 129-130 | Filter 778 (Millennium Gold)                            | step         |
|    |    |    |    | 131-132 | Filter 793 (Vanity Fair)                                | step         |
|    |    |    |    | 133-235 | Raw DMX                                                 | proportional |
|    |    |    |    | 236-245 | Rainbow effect (with fade time) from slow-> fast        | proportional |
|    |    |    |    | 246-255 | Rainbow effect (without fade time) from slow-> fast     | proportional |
| *  | 8  | 8  | 8  |         | <b>Red/Cyan (8 bit)- all pixels***</b>                  |              |
|    |    |    |    | 0 - 255 | Colour saturation control - coarse 0-100% (255=default) | proportional |
| *  | *  | 9  | 9  |         | <b>Red/Cyan (16bit)- all pixels***</b>                  |              |
|    |    |    |    | 0 - 255 | Colour saturation control - fine (255=default)          | proportional |
| *  | 9  | 10 | 10 |         | <b>Green/Magenta (8 bit) - all pixels ***</b>           |              |
|    |    |    |    | 0 - 255 | Colour saturation control - coarse 0-100% (255=default) | proportional |
| *  | *  | 11 | 11 |         | <b>Green/Magenta (16bit) - all pixels***</b>            |              |
|    |    |    |    | 0 - 255 | Colour saturation control - fine (255=default)          | proportional |
| *  | 10 | 12 | 12 |         | <b>Blue/Yellow (8 bit) - all pixels ***</b>             |              |
|    |    |    |    | 0 - 255 | Colour saturation control - coarse 0-100% (255=default) | proportional |
| *  | *  | 13 | 13 |         | <b>Blue/ Yellow (16bit) -all pixels***</b>              |              |
|    |    |    |    | 0 - 255 | Colour saturation control - fine (255=default)          | proportional |
| *  | 11 | 14 | 14 |         | <b>White (8 bit) - all pixels</b>                       |              |
|    |    |    |    |         | <i>If RGBW mode is selected:</i>                        |              |
|    |    |    |    | 0-255   | Colour saturation control - coarse 0-100% (255=default) | proportional |
|    |    |    |    |         | <i>If CMY mode is selected:</i>                         |              |
|    |    |    |    | 0 - 255 | No function                                             |              |
| *  | *  | 15 | 15 |         | <b>White (16 bit) - all pixels</b>                      |              |
|    |    |    |    | 0 - 255 | Colour saturation control - fine (255=default)          | proportional |
| 8  | *  | *  | *  |         | <b>Red/Cyan (8 bit) - zone 1***</b>                     |              |
|    |    |    |    | 0 - 255 | Colour saturation control - coarse 0-100% (255=default) | proportional |
| 9  | *  | *  | *  |         | <b>Red/Cyan (16bit)- zone 1***</b>                      |              |
|    |    |    |    | 0 - 255 | Colour saturation control - fine (255=default)          | proportional |
| 10 | *  | *  | *  |         | <b>Green/Magenta (8 bit) - zone 1***</b>                |              |
|    |    |    |    | 0 - 255 | Colour saturation control - coarse 0-100% (255=default) | proportional |
| 11 | *  | *  | *  |         | <b>Green/Magenta (16bit)- zone 1***</b>                 |              |
|    |    |    |    | 0 - 255 | Colour saturation control - fine (255=default)          | proportional |
| 12 | *  | *  | *  |         | <b>Blue/Yellow (8 bit) - zone 1***</b>                  |              |
|    |    |    |    | 0 - 255 | Colour saturation control - coarse 0-100% (255=default) | proportional |
| 13 | *  | *  | *  |         | <b>Blue/Yellow (16bit)- zone 1***</b>                   |              |
|    |    |    |    | 0 - 255 | Colour saturation control - fine (255=default)          | proportional |
| 14 | *  | *  | *  |         | <b>White (8 bit) - zone 1</b>                           |              |
|    |    |    |    |         | <i>If RGBW mode is selected:</i>                        |              |
|    |    |    |    | 0-255   | Colour saturation control - coarse 0-100% (255=default) | proportional |
|    |    |    |    |         | <i>If CMY mode is selected:</i>                         |              |
|    |    |    |    | 0 - 255 | No function                                             |              |
| 15 | *  | *  | *  |         | <b>White (16 bit) - zone 1</b>                          |              |
|    |    |    |    | 0 - 255 | Colour saturation control - fine (255=default)          | proportional |

# DMX protocol

|    |    |    |    |                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |
|----|----|----|----|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| 16 | *  | *  | *  | 0 - 255          | <b>Red/Cyan (8 bit) - zone 2***</b><br>Colour saturation control - coarse 0-100% (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | proportional |
| 17 | *  | *  | *  | 0 - 255          | <b>Red/Cyan (16bit)- zone 2***</b><br>Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | proportional |
| 18 | *  | *  | *  | 0 - 255          | <b>Green/Magenta (8 bit) - zone 2***</b><br>Colour saturation control - coarse 0-100% (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | proportional |
| 19 | *  | *  | *  | 0 - 255          | <b>Green/Magenta (16bit)- zone 2***</b><br>Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | proportional |
| 20 | *  | *  | *  | 0 - 255          | <b>Blue/Yellow (8 bit) - zone 2***</b><br>Colour saturation control - coarse 0-100% (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | proportional |
| 21 | *  | *  | *  | 0 - 255          | <b>Blue/Yellow (16bit)- zone 2***</b><br>Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | proportional |
| 22 | *  | *  | *  | 0-255<br>0 - 255 | <b>White (8 bit) - zone 2</b><br><i>If RGBW mode is selected:</i><br>Colour saturation control - coarse 0-100% (255=default)<br><i>If CMY mode is selected:</i><br>No function                                                                                                                                                                                                                                                                                                                                                                                           | proportional |
| 23 | *  | *  | *  | 0 - 255          | <b>White (16 bit) - zone 2</b><br>Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | proportional |
| 24 | *  | *  | *  | 0 - 255          | <b>Red/Cyan (8 bit) - zone 3***</b><br>Colour saturation control - coarse 0-100% (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | proportional |
| 25 | *  | *  | *  | 0 - 255          | <b>Red/Cyan (16bit)- zone 3***</b><br>Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | proportional |
| 26 | *  | *  | *  | 0 - 255          | <b>Green/Magenta (8 bit) - zone 3***</b><br>Colour saturation control - coarse 0-100% (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | proportional |
| 27 | *  | *  | *  | 0 - 255          | <b>Green/Magenta (16bit)- zone 3***</b><br>Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | proportional |
| 28 | *  | *  | *  | 0 - 255          | <b>Blue/Yellow (8 bit) - zone 3***</b><br>Colour saturation control - coarse 0-100% (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | proportional |
| 29 | *  | *  | *  | 0 - 255          | <b>Blue/Yellow (16bit)- zone 3***</b><br>Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | proportional |
| 30 | *  | *  | *  | 0-255<br>0 - 255 | <b>White (8 bit) - zone 3</b><br><i>If RGBW mode is selected:</i><br>Colour saturation control - coarse 0-100% (255=default)<br><i>If CMY mode is selected:</i><br>No function                                                                                                                                                                                                                                                                                                                                                                                           | proportional |
| 31 | *  | *  | *  | 0 - 255          | <b>White (16 bit) - zone 3</b><br>Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | proportional |
| 32 | 12 | 16 | 16 | 0-255            | <b>CTC</b><br><i>If function "White Point 8000K" is ON</i><br>Col. temperature correction from 8000K to 2700K -for whites only<br>(0=8000K, 64=5600K, 128=4200K, 192=3200K, 255=2700K)<br>To get colour temperatures stated above, RGBW channels have to be set at the same value (e.g. 255DMX) or RGB=0 and White channel > 0 DMX (0=default)<br>(To activate Tungsten effect at 2700K and 3200K , set DMX value at "Power/Special functions" channel)<br><i>If function "White Point 8000K" is OFF</i><br>Colour temperature correction from cool col. to warm colours | proportional |
| 33 | 13 | 17 | 17 |                  | <b>Colour Mix control</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |              |

# DMX protocol

|           |           |           |           |         |                                                                                                                 |              |
|-----------|-----------|-----------|-----------|---------|-----------------------------------------------------------------------------------------------------------------|--------------|
|           |           |           |           |         | <i>The channel defines relation between color channels</i>                                                      |              |
|           |           |           |           |         | <b><i>IF Flower effect is active, its colour channels always have priority!</i></b>                             |              |
|           |           |           |           |         | <i>Global = Global Colours (RGBW, Virtual Colour Wheel)</i>                                                     |              |
|           |           |           |           |         | <i>Pixel = Pixel Colours (RGB individual pixels or Kling-Net)</i>                                               |              |
|           |           |           |           | 0-9     | Global colours (Global has priority)                                                                            |              |
|           |           |           |           | 10-19   | Maximum mode (highest values have priority)                                                                     | step         |
|           |           |           |           | 20-29   | Minimum mode (lowest values have priority)                                                                      | step         |
|           |           |           |           | 30-39   | Multiply mode (multiply Global and Pixel)                                                                       | step         |
|           |           |           |           | 40-49   | Addition mode (Global + Pixel) (45=default)                                                                     | step         |
|           |           |           |           | 50-59   | Subtraction mode (Global – Pixel)                                                                               | step         |
|           |           |           |           | 60-69   | Inverted Subtraction mode (Pixel – Global)                                                                      | step         |
|           |           |           |           | 70-79   | Coloured background                                                                                             | step         |
|           |           |           |           | 80-127  | Raw DMX                                                                                                         | proportional |
|           |           |           |           | 128     | Global colours only (Global has priority)                                                                       | step         |
|           |           |           |           | 129-254 | Crossfade (crossfade between Global and Pixel)                                                                  | proportional |
|           |           |           |           | 255     | Pixel colours (Pixel has priority)                                                                              | step         |
| <b>34</b> | <b>14</b> | <b>18</b> | <b>18</b> |         | <b>Pixel effects</b>                                                                                            |              |
|           |           |           |           | 0-2     | No function (0=default)                                                                                         |              |
|           |           |           |           | 3-4     | Effect 1                                                                                                        | step         |
|           |           |           |           | 5-6     | Effect 2                                                                                                        | step         |
|           |           |           |           | :       | :                                                                                                               | :            |
|           |           |           |           | 181-182 | Effect 90                                                                                                       | step         |
|           |           |           |           | 183-255 | Raw DMX                                                                                                         | proportional |
| <b>35</b> | <b>15</b> | <b>19</b> | <b>19</b> |         | <b>Pixel effects speed</b>                                                                                      |              |
|           |           |           |           | 0-127   | Speed from min. to max. (0=default)                                                                             | proportional |
|           |           |           |           | 128-255 | Speed from max. to min. (opposite direction)                                                                    | proportional |
| <b>36</b> | <b>16</b> | <b>20</b> | <b>20</b> |         | <b>Pixel effects fade</b>                                                                                       |              |
|           |           |           |           | 0       | Without fade time (0=default)                                                                                   | step         |
|           |           |           |           | 1-255   | Fade time from min. to max.                                                                                     | proportional |
| <b>37</b> | <b>17</b> | <b>21</b> | <b>21</b> |         | <b>Flower Effect</b>                                                                                            |              |
|           |           |           |           | 0       | Open position-without Flower Effect (0=default)                                                                 | step         |
|           |           |           |           | 1 - 127 | Flower Effect forwards rotation from fast to slow                                                               | proportional |
|           |           |           |           | 128     | Flower Effect -without rotation                                                                                 | step         |
|           |           |           |           | 129-255 | Backwards rotation from slow to fast                                                                            | proportional |
| <b>38</b> | <b>18</b> | <b>22</b> | <b>22</b> |         | <b>Flower Effect - Red (8 bit)</b>                                                                              |              |
|           |           |           |           | 0 - 255 | Colour saturation control - coarse 0-100% (255=default)                                                         | proportional |
| <b>39</b> | <b>19</b> | <b>23</b> | <b>23</b> |         | <b>Flower Effect - Green (8 bit)</b>                                                                            |              |
|           |           |           |           | 0 - 255 | Colour saturation control - coarse 0-100% (255=default)                                                         | proportional |
| <b>40</b> | <b>20</b> | <b>24</b> | <b>24</b> |         | <b>Flower effect - Blue (8 bit)</b>                                                                             |              |
|           |           |           |           | 0 - 255 | Colour saturation control - coarse 0-100% (255=default)                                                         | proportional |
| <b>41</b> | <b>21</b> | <b>25</b> | <b>25</b> |         | <b>Flower Effect - White (8 bit)</b>                                                                            |              |
|           |           |           |           | 0-255   | Colour saturation control - coarse 0-100% (255=default)                                                         | proportional |
| <b>42</b> | <b>22</b> | <b>26</b> | <b>26</b> |         | <b>Flower Effect - colour macros</b>                                                                            |              |
|           |           |           |           |         | <i>(Flower Effect channel has to be set &gt; 0 DMX)</i>                                                         |              |
|           |           |           |           | 0       | Open position - without macros (0=default)                                                                      | step         |
|           |           |           |           |         | <i>(Flower effect colour macros have priority to RGBW colours/Virtual colour wheel, Flower effect colours )</i> |              |
|           |           |           |           | 1-2     | Flower Effect colour macro 1                                                                                    | step         |
|           |           |           |           | 3-4     | Flower Effect colour macro 2                                                                                    | step         |
|           |           |           |           | 5-6     | Flower Effect colour macro 3                                                                                    | step         |

# DMX protocol

|                                                                                                               |    |    |    |           |                                                 |              |  |
|---------------------------------------------------------------------------------------------------------------|----|----|----|-----------|-------------------------------------------------|--------------|--|
|                                                                                                               |    |    |    | 119-120   | :                                               |              |  |
|                                                                                                               |    |    |    | 121-255   | Flower Effect colour macro 60                   | step         |  |
|                                                                                                               |    |    |    |           | Raw DMX                                         | proportional |  |
| 43                                                                                                            | 23 | 27 | 27 | 0 - 31    | <b>Flower Effect - Shutter/ strobe</b>          | step         |  |
|                                                                                                               |    |    |    | 32 - 63   | Shutter closed                                  | step         |  |
|                                                                                                               |    |    |    | 64 - 95   | Shutter open (32=default)                       | proportional |  |
|                                                                                                               |    |    |    | 96 - 127  | Strobe-effect from slow to fast                 | step         |  |
|                                                                                                               |    |    |    | 128 - 143 | Shutter open                                    | proportional |  |
|                                                                                                               |    |    |    | 144 - 159 | Opening pulse in sequences from slow to fast    | proportional |  |
|                                                                                                               |    |    |    | 160 - 191 | Closing pulse in sequences from fast to slow    | step         |  |
|                                                                                                               |    |    |    | 192 - 223 | Shutter open                                    | proportional |  |
|                                                                                                               |    |    |    | 224 - 255 | Random strobe-effect from slow to fast          | step         |  |
| 44                                                                                                            | 24 | 28 | 28 | 0 - 255   | <b>Flower Effect - Dimmer intensity (8 bit)</b> |              |  |
|                                                                                                               |    |    |    |           | Dimmer intensity from 0% to 100% (0=default)    | proportional |  |
| 45                                                                                                            | 25 | 29 | 29 |           | <b>Zoom</b>                                     |              |  |
|                                                                                                               |    |    |    | 0-255     | Zoom from max. to min.beam angle (128=default)  | proportional |  |
| 46                                                                                                            | *  | 30 | 30 |           | <b>Zoom - fine</b>                              |              |  |
|                                                                                                               |    |    |    | 0-255     | Fine zooming (0=default)                        | proportional |  |
| 47                                                                                                            | 26 | 31 | 31 |           | <b>Shutter/ strobe</b>                          |              |  |
|                                                                                                               |    |    |    | 0 - 31    | Shutter closed                                  | step         |  |
|                                                                                                               |    |    |    | 32 - 63   | Shutter open (32=default)                       | step         |  |
|                                                                                                               |    |    |    | 64 - 95   | Strobe-effect from slow to fast                 | proportional |  |
|                                                                                                               |    |    |    | 96 - 127  | Shutter open                                    | step         |  |
|                                                                                                               |    |    |    | 128 - 143 | Opening pulse in sequences from slow to fast    | proportional |  |
|                                                                                                               |    |    |    | 144 - 159 | Closing pulse in sequences from fast to slow    | proportional |  |
|                                                                                                               |    |    |    | 160 - 191 | Shutter open                                    | step         |  |
|                                                                                                               |    |    |    | 192 - 223 | Random strobe-effect from slow to fast          | proportional |  |
|                                                                                                               |    |    |    | 224 - 255 | Shutter open                                    | step         |  |
| 48                                                                                                            | 27 | 32 | 32 |           | <b>Dimmer intensity (8 bit)</b>                 |              |  |
|                                                                                                               |    |    |    | 0 - 255   | Dimmer intensity from 0% to 100% (0=default)    | proportional |  |
| 49                                                                                                            | *  | 33 | 33 |           | <b>Dimmer intensity - fine (16 bit)</b>         |              |  |
|                                                                                                               |    |    |    | 0 - 255   | Fine dimming (0=default)                        | proportional |  |
| *                                                                                                             | *  | *  | 34 |           | <b>Red pixel 1</b>                              |              |  |
|                                                                                                               |    |    |    | 0-255     | Red LED saturation control 0-100% (0=default)   | proportional |  |
| *                                                                                                             | *  | *  | 35 |           | <b>Green pixel 1</b>                            |              |  |
|                                                                                                               |    |    |    | 0-255     | Green LED saturation control 0-100% (0=default) | proportional |  |
| *                                                                                                             | *  | *  | 36 |           | <b>Blue pixel 1</b>                             |              |  |
|                                                                                                               |    |    |    | 0-255     | Blue LED saturation control 0-100% (0=default)  | proportional |  |
|                                                                                                               |    |    |    |           | :                                               |              |  |
| *                                                                                                             | *  | *  | 88 |           | <b>Red pixel 19</b>                             |              |  |
|                                                                                                               |    |    |    | 0-255     | Red LED saturation control 0-100% (0=default)   | proportional |  |
| *                                                                                                             | *  | *  | 89 |           | <b>Green pixel 19</b>                           |              |  |
|                                                                                                               |    |    |    | 0-255     | Green LED saturation control 0-100% (0=default) | proportional |  |
| *                                                                                                             | *  | *  | 90 |           | <b>Blue pixel 19</b>                            |              |  |
|                                                                                                               |    |    |    | 0-255     | Blue LED saturation control 0-100% (0=default)  | proportional |  |
| * function is active only 10 seconds after switching the fixture on                                           |    |    |    |           |                                                 |              |  |
| ** In the Tungsten effect simulation the Dimmer channel imitates behaviour of the halogen lamp during dimming |    |    |    |           |                                                 |              |  |
| *** Select RGB or CMY mixing mode on channel "Power/Special functions"                                        |    |    |    |           |                                                 |              |  |
|                                                                                                               |    |    |    |           |                                                 |              |  |

|                                                                  |  |  |  |  |  |  |
|------------------------------------------------------------------|--|--|--|--|--|--|
| Copyright © 2016-2020 Robe Lighting s.r.o. - All rights reserved |  |  |  |  |  |  |
| All Specifications subject to change without notice              |  |  |  |  |  |  |
|                                                                  |  |  |  |  |  |  |

# DMX protocol

| Robin SPIIDER - DMX protocol                                                                                                                 |   |   |   |   |    |           |                                                                                                                                                                                                                                                                                                                  |                 |
|----------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|----|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Version: 2.3 (10 modes) Mode 5-Wash, Mode 6-Pattern, Mode 7-Pixel RGB, Mode 8-Pixel RGBW, Mode 9-Pattern full RGB, Mode 10-Pattern full RGBW |   |   |   |   |    |           |                                                                                                                                                                                                                                                                                                                  |                 |
| Mode/channel                                                                                                                                 |   |   |   |   |    | DMX Value | Function                                                                                                                                                                                                                                                                                                         | Type of control |
| 5                                                                                                                                            | 6 | 7 | 8 | 9 | 10 |           |                                                                                                                                                                                                                                                                                                                  |                 |
| 1                                                                                                                                            | 1 | 1 | 1 | 1 | 1  |           | <b>Pan (8 bit)</b>                                                                                                                                                                                                                                                                                               |                 |
|                                                                                                                                              |   |   |   |   |    | 0 - 255   | Pan movement by 540° (128=default)                                                                                                                                                                                                                                                                               | proportional    |
| 2                                                                                                                                            | 2 | 2 | 2 | 2 | 2  |           | <b>Pan Fine (16 bit)</b>                                                                                                                                                                                                                                                                                         |                 |
|                                                                                                                                              |   |   |   |   |    | 0 - 255   | Fine control of pan movement (0=default)                                                                                                                                                                                                                                                                         | proportional    |
| 3                                                                                                                                            | 3 | 3 | 3 | 3 | 3  |           | <b>Tilt (8 bit)</b>                                                                                                                                                                                                                                                                                              |                 |
|                                                                                                                                              |   |   |   |   |    | 0 - 255   | Tilt movement by 220° (128=default)                                                                                                                                                                                                                                                                              | proportional    |
| 4                                                                                                                                            | 4 | 4 | 4 | 4 | 4  |           | <b>Tilt fine (16 bit)</b>                                                                                                                                                                                                                                                                                        |                 |
|                                                                                                                                              |   |   |   |   |    | 0 - 255   | Fine control of tilt movement (0=default)                                                                                                                                                                                                                                                                        | proportional    |
| 5                                                                                                                                            | 5 | 5 | 5 | 5 | 5  |           | <b>Pan/Tilt speed , Pan/Tilt time</b>                                                                                                                                                                                                                                                                            |                 |
|                                                                                                                                              |   |   |   |   |    | 0         | Standard mode (0=default)                                                                                                                                                                                                                                                                                        | step            |
|                                                                                                                                              |   |   |   |   |    | 1         | Max. Speed Mode                                                                                                                                                                                                                                                                                                  | step            |
|                                                                                                                                              |   |   |   |   |    |           | <b>Pan/Tilt speed mode</b>                                                                                                                                                                                                                                                                                       |                 |
|                                                                                                                                              |   |   |   |   |    | 2 - 255   | Speed from max. to min.                                                                                                                                                                                                                                                                                          | proportional    |
|                                                                                                                                              |   |   |   |   |    |           | <b>Pan/Tilt time mode</b>                                                                                                                                                                                                                                                                                        |                 |
|                                                                                                                                              |   |   |   |   |    | 2 - 255   | Time from 0.2sec. to 25.5 sec.                                                                                                                                                                                                                                                                                   | proportional    |
| 6                                                                                                                                            | 6 | 6 | 6 | 6 | 6  |           | <b>Power/Special functions</b>                                                                                                                                                                                                                                                                                   |                 |
|                                                                                                                                              |   |   |   |   |    | 0 - 9     | Reserved (0=default)<br><i>To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Master Shutter/Strobe“ channel 26/45/32/32/45/45 must be at range: 0-31 DMX).<br/>Corresponding menu items are temporarily overridden ( unless otherwise stated)</i> |                 |
|                                                                                                                                              |   |   |   |   |    | 10-14     | DMX input: Wired DMX                                                                                                                                                                                                                                                                                             | step            |
|                                                                                                                                              |   |   |   |   |    | 15-19     | DMX input: Wireless DMX *                                                                                                                                                                                                                                                                                        | step            |
|                                                                                                                                              |   |   |   |   |    |           | * function is active only 10 seconds after switching the fixture on                                                                                                                                                                                                                                              |                 |
|                                                                                                                                              |   |   |   |   |    | 20-24     | Graphic display ON                                                                                                                                                                                                                                                                                               | step            |
|                                                                                                                                              |   |   |   |   |    | 25-29     | Graphic display OFF                                                                                                                                                                                                                                                                                              | step            |
|                                                                                                                                              |   |   |   |   |    | 30-34     | RGBW colour mixing mode                                                                                                                                                                                                                                                                                          | step            |
|                                                                                                                                              |   |   |   |   |    | 35-39     | CMY colour mixing mode                                                                                                                                                                                                                                                                                           | step            |
|                                                                                                                                              |   |   |   |   |    | 40-44     | Pan/Tilt speed mode                                                                                                                                                                                                                                                                                              | step            |
|                                                                                                                                              |   |   |   |   |    | 45-49     | Pan/Tilt time mode                                                                                                                                                                                                                                                                                               | step            |
|                                                                                                                                              |   |   |   |   |    | 50-54     | Blackout while pan/tilt moving                                                                                                                                                                                                                                                                                   | step            |
|                                                                                                                                              |   |   |   |   |    | 55-59     | Disabled blackout while pan/tilt moving                                                                                                                                                                                                                                                                          | step            |
|                                                                                                                                              |   |   |   |   |    | 60-64     | Dimmer curve-square law                                                                                                                                                                                                                                                                                          | step            |
|                                                                                                                                              |   |   |   |   |    | 65-69     | Dimmer curve-linear                                                                                                                                                                                                                                                                                              | step            |
|                                                                                                                                              |   |   |   |   |    | 70-74     | Fans mode: Auto                                                                                                                                                                                                                                                                                                  | step            |
|                                                                                                                                              |   |   |   |   |    | 75-79     | Fans mode: High                                                                                                                                                                                                                                                                                                  | step            |
|                                                                                                                                              |   |   |   |   |    | 80-84     | White point 8000K ON                                                                                                                                                                                                                                                                                             | step            |
|                                                                                                                                              |   |   |   |   |    | 85-89     | White point 8000K OFF                                                                                                                                                                                                                                                                                            | step            |
|                                                                                                                                              |   |   |   |   |    | 90-109    | Reserved                                                                                                                                                                                                                                                                                                         |                 |
|                                                                                                                                              |   |   |   |   |    | 110-114   | Kling-Net On                                                                                                                                                                                                                                                                                                     | step            |
|                                                                                                                                              |   |   |   |   |    | 115-119   | Kling-Net Off                                                                                                                                                                                                                                                                                                    | step            |
|                                                                                                                                              |   |   |   |   |    | 120-124   | Parking position On                                                                                                                                                                                                                                                                                              | step            |
|                                                                                                                                              |   |   |   |   |    | 125-129   | Parking position Off                                                                                                                                                                                                                                                                                             | step            |

# DMX protocol

| Mode/channel |          |          |          |          |          | DMX Value | Function                                                                                                                                                                              | Type of control |
|--------------|----------|----------|----------|----------|----------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 5            | 6        | 7        | 8        | 9        | 10       |           |                                                                                                                                                                                       |                 |
|              |          |          |          |          |          |           | <i>To activate following functions, stop in DMX value for at least 3 seconds (except function Pixel index and Pixel mirror). Corresponding menu items are temporarily overridden.</i> |                 |
|              |          |          |          |          |          | 130 - 139 | Fixture reset (except pan/tilt)                                                                                                                                                       |                 |
|              |          |          |          |          |          | 140 - 149 | Pan/Tilt reset                                                                                                                                                                        | step            |
|              |          |          |          |          |          | 150 - 159 | Zoom reset                                                                                                                                                                            | step            |
|              |          |          |          |          |          | 160 - 169 | Flower effect reset                                                                                                                                                                   | step            |
|              |          |          |          |          |          | 170-171   | Tungsten effect simulation (750W) On **                                                                                                                                               | step            |
|              |          |          |          |          |          | 172-173   | Tungsten effect simulation (1000W) On **                                                                                                                                              | step            |
|              |          |          |          |          |          | 174-175   | Tungsten effect simulation (1200W) On **                                                                                                                                              | step            |
|              |          |          |          |          |          | 176-177   | Tungsten effect simulation (2000W) On **                                                                                                                                              | step            |
|              |          |          |          |          |          | 178-179   | Tungsten effect simulation (2500W) On **                                                                                                                                              | step            |
|              |          |          |          |          |          | 180-181   | Tungsten effect simulation Off                                                                                                                                                        | step            |
|              |          |          |          |          |          | 182-184   | Reserved                                                                                                                                                                              |                 |
|              |          |          |          |          |          | 185       | PWM output frequency of LEDS: Standard (300Hz)*                                                                                                                                       | step            |
|              |          |          |          |          |          | 186       | PWM output frequency of LEDS: High (600Hz)*                                                                                                                                           | step            |
|              |          |          |          |          |          |           | * You can adjust selected frequency in 6 steps Up or Down around selected frequency - see table below . Default value of PWM frequency set in the fixture is Standard.                |                 |
|              |          |          |          |          |          | 187       | LED Frequency (step -6)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 188       | LED Frequency (step -5)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 189       | LED Frequency (step -4)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 190       | LED Frequency (step -3)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 191       | LED Frequency (step -2)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 192       | LED Frequency (step -1)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 193       | LED Frequency (Standard or High)                                                                                                                                                      | step            |
|              |          |          |          |          |          | 194       | LED Frequency (step +1)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 195       | LED Frequency (step +2)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 196       | LED Frequency (step +3)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 197       | LED Frequency (step +4)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 198       | LED Frequency (step +5)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 199       | LED Frequency (step +6)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 200 - 209 | Total fixture reset                                                                                                                                                                   | step            |
|              |          |          |          |          |          | 210 - 221 | Pixel index                                                                                                                                                                           | proportional    |
|              |          |          |          |          |          | 222 - 223 | Pixel mirror On                                                                                                                                                                       | step            |
|              |          |          |          |          |          | 224 - 225 | Pixel mirror Off                                                                                                                                                                      | step            |
|              |          |          |          |          |          | 226 - 236 | Reserved                                                                                                                                                                              |                 |
|              |          |          |          |          |          | 237       | Save Pixel index and mirror to fixture                                                                                                                                                | step            |
|              |          |          |          |          |          |           | The following RoboSpot related commands are only applicable when the RoboSpot is connected:                                                                                           |                 |
|              |          |          |          |          |          | 238 - 239 | RoboSpot enabled                                                                                                                                                                      | step            |
|              |          |          |          |          |          | 240 - 241 | RoboSpot disabled - except handle faders and pan/tilt                                                                                                                                 | step            |
|              |          |          |          |          |          | 242 - 243 | RoboSpot fully disabled                                                                                                                                                               | step            |
|              |          |          |          |          |          | 244       | Disabled "Silent mode"                                                                                                                                                                | step            |
|              |          |          |          |          |          | 245 - 255 | Silent mode - fan noise control from min. to max.                                                                                                                                     | proportional    |
| <b>7</b>     | <b>7</b> | <b>7</b> | <b>7</b> | <b>7</b> | <b>7</b> |           | <b>Background - Virtual colour wheel</b>                                                                                                                                              |                 |
|              |          |          |          |          |          | 0         | No function (0=default)                                                                                                                                                               | step            |
|              |          |          |          |          |          | 1-2       | Filter 4 (Medium Bastard Amber)                                                                                                                                                       | step            |
|              |          |          |          |          |          | 3-4       | Filter 25 (Sunset Red)                                                                                                                                                                | step            |

DMX protocol

| Mode/channel |   |   |   |   |    | DMX Value | Function                       | Type of control |
|--------------|---|---|---|---|----|-----------|--------------------------------|-----------------|
| 5            | 6 | 7 | 8 | 9 | 10 |           |                                |                 |
|              |   |   |   |   |    | 5-6       | Filter 19 (Fire)               | step            |
|              |   |   |   |   |    | 7-8       | Filter 26 (Bright Red)         | step            |
|              |   |   |   |   |    | 9-10      | Filter 58 (Lavender)           | step            |
|              |   |   |   |   |    | 11-12     | Filter 68 (Sky Blue)           | step            |
|              |   |   |   |   |    | 13-14     | Filter 36 (Medium Pink)        | step            |
|              |   |   |   |   |    | 15-16     | Filter 89 (Moss Green)         | step            |
|              |   |   |   |   |    | 17-18     | Filter 88 (Lime Green)         | step            |
|              |   |   |   |   |    | 19-20     | Filter 90 (Dark Yellow Green)  | step            |
|              |   |   |   |   |    | 21-22     | Filter 49 (Medium Purple)      | step            |
|              |   |   |   |   |    | 23-24     | Filter 52 (Light Lavender)     | step            |
|              |   |   |   |   |    | 25-26     | Filter 102 (Light Amber)       | step            |
|              |   |   |   |   |    | 27-28     | Filter 103 (Straw)             | step            |
|              |   |   |   |   |    | 29-30     | Filter 140 (Summer Blue)       | step            |
|              |   |   |   |   |    | 31-32     | Filter 124 (Dark Green)        | step            |
|              |   |   |   |   |    | 33-34     | Filter 106 (Primary Red)       | step            |
|              |   |   |   |   |    | 35-36     | Filter 111 (Dark Pink)         | step            |
|              |   |   |   |   |    | 37-38     | Filter 115 (Peacock Blue)      | step            |
|              |   |   |   |   |    | 39-40     | Filter 126 (Mauve)             | step            |
|              |   |   |   |   |    | 41-42     | Filter 117 (Steel Blue)        | step            |
|              |   |   |   |   |    | 43-44     | Filter 118 (Light Blue)        | step            |
|              |   |   |   |   |    | 45-46     | Filter 122 (Fern Green)        | step            |
|              |   |   |   |   |    | 47-48     | Filter 182 (Light Red)         | step            |
|              |   |   |   |   |    | 49-50     | Filter 121 (Filter Green)      | step            |
|              |   |   |   |   |    | 51-52     | Filter 128 (Bright Pink)       | step            |
|              |   |   |   |   |    | 53-54     | Filter 131 (Marine Blue)       | step            |
|              |   |   |   |   |    | 55-56     | Filter 132 (Medium Blue)       | step            |
|              |   |   |   |   |    | 57-58     | Filter 134 (Golden Amber)      | step            |
|              |   |   |   |   |    | 59-60     | Filter 135 (Deep Golden Amber) | step            |
|              |   |   |   |   |    | 61-62     | Filter 136 (Pale Lavender)     | step            |
|              |   |   |   |   |    | 63-64     | Filter 137 (Special Lavender)  | step            |
|              |   |   |   |   |    | 65-66     | Filter 138 (Pale Green)        | step            |
|              |   |   |   |   |    | 67-68     | Filter 798 (Chrysalis Pink)    | step            |
|              |   |   |   |   |    | 69-70     | Filter 141 (Bright Blue)       | step            |
|              |   |   |   |   |    | 71-72     | Filter 147 (Apricot)           | step            |
|              |   |   |   |   |    | 73-74     | Filter 148 (Bright Rose)       | step            |
|              |   |   |   |   |    | 75-76     | Filter 152 (Pale Gold)         | step            |
|              |   |   |   |   |    | 77-78     | Filter 154 (Pale Rose)         | step            |
|              |   |   |   |   |    | 79-80     | Filter 157 (Pink)              | step            |
|              |   |   |   |   |    | 81-82     | Filter 143 (Pale Navy Blue)    | step            |
|              |   |   |   |   |    | 83-84     | Filter 162 (Bastard Amber)     | step            |
|              |   |   |   |   |    | 85-86     | Filter 164 (Flame Red)         | step            |
|              |   |   |   |   |    | 87-88     | Filter 165 (Daylight Blue)     | step            |
|              |   |   |   |   |    | 89-90     | Filter 169 (Lilac Tint)        | step            |
|              |   |   |   |   |    | 91-92     | Filter 170 (Deep Lavender)     | step            |
|              |   |   |   |   |    | 93-94     | Filter 172 (Lagoon Blue)       | step            |
|              |   |   |   |   |    | 95-96     | Filter 194 (Surprise Pink)     | step            |
|              |   |   |   |   |    | 97-98     | Filter 180 (Dark Lavender)     | step            |
|              |   |   |   |   |    | 99-100    | Filter 181 (Congo Blue)        | step            |

# DMX protocol

| Mode/channel |    |    |    |    |    | DMX Value | Function                                                                                                                                                                                                                                                                                                                                                                                  | Type of control |
|--------------|----|----|----|----|----|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 5            | 6  | 7  | 8  | 9  | 10 |           |                                                                                                                                                                                                                                                                                                                                                                                           |                 |
|              |    |    |    |    |    | 101-102   | Filter 197 (Alice Blue)                                                                                                                                                                                                                                                                                                                                                                   | step            |
|              |    |    |    |    |    | 103-104   | Filter 201 (Full C.T. Blue)                                                                                                                                                                                                                                                                                                                                                               | step            |
|              |    |    |    |    |    | 105-106   | Filter 202 (Half C.T. Blue)                                                                                                                                                                                                                                                                                                                                                               | step            |
|              |    |    |    |    |    | 107-108   | Filter 203 (Quarter C.T. Blue)                                                                                                                                                                                                                                                                                                                                                            | step            |
|              |    |    |    |    |    | 109-110   | Filter 204 (Full C.T. Orange)                                                                                                                                                                                                                                                                                                                                                             | step            |
|              |    |    |    |    |    | 111-112   | Filter 219 (Fluorescent Green)                                                                                                                                                                                                                                                                                                                                                            | step            |
|              |    |    |    |    |    | 113-114   | Filter 206 (Quarter C.T. Orange)                                                                                                                                                                                                                                                                                                                                                          | step            |
|              |    |    |    |    |    | 115-116   | Filter 247 (Filter Minus Green)                                                                                                                                                                                                                                                                                                                                                           | step            |
|              |    |    |    |    |    | 117-118   | Filter 248 (Half Minus Green)                                                                                                                                                                                                                                                                                                                                                             | step            |
|              |    |    |    |    |    | 119-120   | Filter 281 (Three Quarter C.T. Blue)                                                                                                                                                                                                                                                                                                                                                      | step            |
|              |    |    |    |    |    | 121-122   | Filter 285 (Three Quarter C.T. Orange)                                                                                                                                                                                                                                                                                                                                                    | step            |
|              |    |    |    |    |    | 123-124   | Filter 352 (Glacier Blue)                                                                                                                                                                                                                                                                                                                                                                 | step            |
|              |    |    |    |    |    | 125-126   | Filter 353 (Lighter Blue)                                                                                                                                                                                                                                                                                                                                                                 | step            |
|              |    |    |    |    |    | 127-128   | Filter 507 (Madge)                                                                                                                                                                                                                                                                                                                                                                        | step            |
|              |    |    |    |    |    | 129-130   | Filter 778 (Millennium Gold)                                                                                                                                                                                                                                                                                                                                                              | step            |
|              |    |    |    |    |    | 131-132   | Filter 793 (Vanity Fair)                                                                                                                                                                                                                                                                                                                                                                  | step            |
|              |    |    |    |    |    | 133-235   | Raw DMX                                                                                                                                                                                                                                                                                                                                                                                   | proportional    |
|              |    |    |    |    |    | 236-245   | Rainbow effect (with fade time) from slow-> fast                                                                                                                                                                                                                                                                                                                                          | proportional    |
|              |    |    |    |    |    | 246-255   | Rainbow effect (without fade time) from slow-> fast                                                                                                                                                                                                                                                                                                                                       | proportional    |
| 8            | 8  | 8  | 8  | 8  | 8  |           | <b>Background - Red/Cyan (8 bit)***</b>                                                                                                                                                                                                                                                                                                                                                   |                 |
|              |    |    |    |    |    | 0 - 255   | Colour saturation control - coarse 0-100% (255=default)                                                                                                                                                                                                                                                                                                                                   | proportional    |
| *            | 9  | 9  | 9  | 9  | 9  |           | <b>Background - Red/Cyan (16bit)***</b>                                                                                                                                                                                                                                                                                                                                                   |                 |
|              |    |    |    |    |    | 0 - 255   | Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                            | proportional    |
| 9            | 10 | 10 | 10 | 10 | 10 |           | <b>Background - Green/Magenta (8 bit)***</b>                                                                                                                                                                                                                                                                                                                                              |                 |
|              |    |    |    |    |    | 0 - 255   | Colour saturation control - coarse 0-100% (255=default)                                                                                                                                                                                                                                                                                                                                   | proportional    |
| *            | 11 | 11 | 11 | 11 | 11 |           | <b>Background - Green/Magenta (16bit) ***</b>                                                                                                                                                                                                                                                                                                                                             |                 |
|              |    |    |    |    |    | 0 - 255   | Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                            | proportional    |
| 10           | 12 | 12 | 12 | 12 | 12 |           | <b>Background - Blue/Yellow (8 bit)***</b>                                                                                                                                                                                                                                                                                                                                                |                 |
|              |    |    |    |    |    | 0 - 255   | Colour saturation control - coarse 0-100% (255=default)                                                                                                                                                                                                                                                                                                                                   | proportional    |
| *            | 13 | 13 | 13 | 13 | 13 |           | <b>Background - Blue/ Yellow (16bit)***</b>                                                                                                                                                                                                                                                                                                                                               |                 |
|              |    |    |    |    |    | 0 - 255   | Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                            | proportional    |
| 11           | 14 | 14 | 14 | 14 | 14 |           | <b>Background - White (8 bit) - all pixels</b>                                                                                                                                                                                                                                                                                                                                            |                 |
|              |    |    |    |    |    |           | <i>If RGBW mode is selected:</i>                                                                                                                                                                                                                                                                                                                                                          |                 |
|              |    |    |    |    |    | 0-255     | Colour saturation control - coarse 0-100% (255=default)                                                                                                                                                                                                                                                                                                                                   | proportional    |
|              |    |    |    |    |    |           | <i>If CMY mode is selected:</i>                                                                                                                                                                                                                                                                                                                                                           |                 |
|              |    |    |    |    |    | 0 - 255   | No function                                                                                                                                                                                                                                                                                                                                                                               |                 |
| *            | 15 | 15 | 15 | 15 | 15 |           | <b>Background - White (16 bit) - all pixels</b>                                                                                                                                                                                                                                                                                                                                           |                 |
|              |    |    |    |    |    | 0 - 255   | Colour saturation control - fine (255=default)                                                                                                                                                                                                                                                                                                                                            | proportional    |
| 12           | 16 | 16 | 16 | 16 | 16 |           | <b>Background - CTC</b>                                                                                                                                                                                                                                                                                                                                                                   |                 |
|              |    |    |    |    |    |           | <i>If function "White Point 8000K" is ON</i>                                                                                                                                                                                                                                                                                                                                              |                 |
|              |    |    |    |    |    | 0-255     | Col. temperature correction from 8000K to 2700K -for whites only<br>(0=8000K, 64=5600K, 128=4200K, 192=3200K, 255=2700K)<br>To get colour temperatures stated above, RGBW channels have to be set at the same value (e.g. 255DMX) or RGB=0 and White channel > 0 DMX (0=default)<br>(To activate Tungsten effect at 2700K and 3200K , set DMX value at "Power/Special functions" channel) | proportional    |
|              |    |    |    |    |    |           | <i>If function "White Point 8000K" is OFF</i>                                                                                                                                                                                                                                                                                                                                             |                 |
|              |    |    |    |    |    | 0-255     | Colour temperature correction from cool col. to warm colour                                                                                                                                                                                                                                                                                                                               | proportional    |

# DMX protocol

| Mode/channel |    |    |    |    |    | DMX Value | Function                                                                     | Type of control |
|--------------|----|----|----|----|----|-----------|------------------------------------------------------------------------------|-----------------|
| 5            | 6  | 7  | 8  | 9  | 10 |           |                                                                              |                 |
| 13           | 17 | 17 | 17 | 17 | 17 |           | <b>Background - Shutter/ strobe</b>                                          |                 |
|              |    |    |    |    |    | 0 - 31    | Shutter closed                                                               | step            |
|              |    |    |    |    |    | 32 - 63   | Shutter open (32=default)                                                    | step            |
|              |    |    |    |    |    | 64 - 95   | Strobe effect from slow to fast                                              | proportional    |
|              |    |    |    |    |    | 96 - 127  | Shutter open                                                                 | step            |
|              |    |    |    |    |    | 128 - 143 | Opening pulse in sequences from slow to fast                                 | proportional    |
|              |    |    |    |    |    | 144 - 159 | Closing pulse in sequences from fast to slow                                 | proportional    |
|              |    |    |    |    |    | 160 - 191 | Shutter open                                                                 | step            |
|              |    |    |    |    |    | 192 - 223 | Random strobe effect from slow to fast                                       | proportional    |
|              |    |    |    |    |    | 224 - 255 | Shutter open                                                                 | step            |
| 14           | 18 | 18 | 18 | 18 | 18 |           | <b>Background - Dimmer intensity (8 bit)</b>                                 |                 |
|              |    |    |    |    |    | 0 - 255   | Dimmer intensity from 0% to 100% (255=default)                               | proportional    |
| *            | 19 | 19 | 19 | 19 | 19 |           | <b>Background Dimmer intensity - fine (16 bit)</b>                           |                 |
|              |    |    |    |    |    | 0 - 255   | Fine dimming (255=default)                                                   | proportional    |
| 15           | 20 | 20 | 20 | 20 | 20 |           | <b>Background - Active zone</b>                                              |                 |
|              |    |    |    |    |    | 0-2       | All pixels (0=default)                                                       |                 |
|              |    |    |    |    |    | 3-4       | Ring 1 (Middle pixel)                                                        | step            |
|              |    |    |    |    |    | 5-6       | Ring 2                                                                       | step            |
|              |    |    |    |    |    | 7-8       | Ring 3                                                                       | step            |
|              |    |    |    |    |    | 9-10      | Ring 1+ Ring 2                                                               | step            |
|              |    |    |    |    |    | 11-12     | Ring 1+ Ring 3                                                               | step            |
|              |    |    |    |    |    | 13-14     | Ring 2 + Ring 3                                                              | step            |
|              |    |    |    |    |    | 15-16     | Sector 1                                                                     | step            |
|              |    |    |    |    |    | 17-18     | Sector 2                                                                     | step            |
|              |    |    |    |    |    | 19-20     | Sector 3                                                                     | step            |
|              |    |    |    |    |    | 21-22     | Sector 4                                                                     | step            |
|              |    |    |    |    |    | 23-24     | Sector 5                                                                     | step            |
|              |    |    |    |    |    | 25-26     | Sector 6                                                                     | step            |
|              |    |    |    |    |    | 27-28     | Sector 1+4                                                                   | step            |
|              |    |    |    |    |    | 29-30     | Sector 1+4+Ring 1                                                            | step            |
|              |    |    |    |    |    | 31-32     | Sector 2+5                                                                   | step            |
|              |    |    |    |    |    | 33-34     | Sector 2+5+Ring 1                                                            | step            |
|              |    |    |    |    |    | 35-36     | Sector 3+6                                                                   | step            |
|              |    |    |    |    |    | 37-38     | Sector 3+6+Ring 1                                                            | step            |
|              |    |    |    |    |    | 39-40     | Sector 1+3+5                                                                 | step            |
|              |    |    |    |    |    | 41-42     | Sector 1+3+5+Ring 1                                                          | step            |
|              |    |    |    |    |    | 43-44     | Sector 2+4+6                                                                 | step            |
|              |    |    |    |    |    | 45-46     | Sector 2+4+6+Ring 1                                                          | step            |
|              |    |    |    |    |    | 47-48     | Sector 1+2+3                                                                 | step            |
|              |    |    |    |    |    | 49-50     | Sector 2+3+4                                                                 | step            |
|              |    |    |    |    |    | 51-52     | Sector 3+4+5                                                                 | step            |
|              |    |    |    |    |    | 53-54     | Sector 4+5+6                                                                 | step            |
|              |    |    |    |    |    | 55-56     | Sector 5+6+1                                                                 | step            |
|              |    |    |    |    |    | 57-58     | sector 6+1+2                                                                 | step            |
|              |    |    |    |    |    | 59-255    | Raw DMX                                                                      | proportional    |
| 16           | 21 | 21 | 21 | 21 | 21 |           | <b>Colour Mix control</b>                                                    |                 |
|              |    |    |    |    |    |           | <i>The channel defines relation between color channels</i>                   |                 |
|              |    |    |    |    |    |           | <i>IF Flower effect is active, its colour channels always have priority!</i> |                 |

# DMX protocol

| Mode/channel |    |    |    |    |    | DMX Value | Function                                                                                                                                                                                       | Type of control |
|--------------|----|----|----|----|----|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| 5            | 6  | 7  | 8  | 9  | 10 |           |                                                                                                                                                                                                |                 |
|              |    |    |    |    |    |           | <i>Global = Global Colours (Background RGBW, Background Virtual Colour Wheel, Background CTC)</i>                                                                                              |                 |
|              |    |    |    |    |    |           | <i>Pixel = Pixel Colours (RGB individual pixels or Kling-Net)</i>                                                                                                                              |                 |
|              |    |    |    |    |    | 0-9       | Global colours (Global has priority)                                                                                                                                                           |                 |
|              |    |    |    |    |    | 10-19     | Maximum mode (highest values have priority)                                                                                                                                                    | step            |
|              |    |    |    |    |    | 20-29     | Minimum mode (lowest values have priority)                                                                                                                                                     | step            |
|              |    |    |    |    |    | 30-39     | Multiply mode (multiply Global and Pixel)                                                                                                                                                      | step            |
|              |    |    |    |    |    | 40-49     | Addition mode (Global + Pixel) (45=default)                                                                                                                                                    | step            |
|              |    |    |    |    |    | 50-59     | Subtraction mode (Global – Pixel)                                                                                                                                                              | step            |
|              |    |    |    |    |    | 60-69     | Inverted Subtraction mode (Pixel – Global)                                                                                                                                                     | step            |
|              |    |    |    |    |    | 70-79     | Coloured background                                                                                                                                                                            | step            |
|              |    |    |    |    |    | 80-127    | Raw DMX                                                                                                                                                                                        | proportional    |
|              |    |    |    |    |    | 128       | Global colours only (Global has priority)                                                                                                                                                      | step            |
|              |    |    |    |    |    | 129-254   | Crossfade (crossfade between Global and Pixel)                                                                                                                                                 | proportional    |
|              |    |    |    |    |    | 255       | Pixel colours (Pixel has priority)                                                                                                                                                             | step            |
| 17           | 22 | 22 | 22 | 22 | 22 |           | <b>Flower Effect</b>                                                                                                                                                                           |                 |
|              |    |    |    |    |    | 0         | Open position-without Flower Effect (0=default)                                                                                                                                                | step            |
|              |    |    |    |    |    | 1 - 127   | Flower Effect forwards rotation from fast to slow                                                                                                                                              | proportional    |
|              |    |    |    |    |    | 128       | Flower Effect -without rotation                                                                                                                                                                | step            |
|              |    |    |    |    |    | 129-255   | Backwards rotation from slow to fast                                                                                                                                                           | proportional    |
| 18           | 23 | 23 | 23 | 23 | 23 |           | <b>Flower Effect - Red/Cyan (8 bit)</b>                                                                                                                                                        |                 |
|              |    |    |    |    |    | 0 - 255   | Colour saturation control - coarse 0-100% (255=default)                                                                                                                                        | proportional    |
| 19           | 24 | 24 | 24 | 24 | 24 |           | <b>Flower Effect - Green/Magenta (8 bit)</b>                                                                                                                                                   |                 |
|              |    |    |    |    |    | 0 - 255   | Colour saturation control - coarse 0-100% (255=default)                                                                                                                                        | proportional    |
| 20           | 25 | 25 | 25 | 25 | 25 |           | <b>Flower effect - Blue/Yellow (8 bit)</b>                                                                                                                                                     |                 |
|              |    |    |    |    |    | 0 - 255   | Colour saturation control - coarse 0-100% (255=default)                                                                                                                                        | proportional    |
| 21           | 26 | 26 | 26 | 26 | 26 |           | <b>Flower Effect - White (8 bit)</b>                                                                                                                                                           |                 |
|              |    |    |    |    |    | 0-255     | Colour saturation control - coarse 0-100% (255=default)                                                                                                                                        | proportional    |
| 22           | 27 | 27 | 27 | 27 | 27 |           | <b>Flower Effect - colour macros</b>                                                                                                                                                           |                 |
|              |    |    |    |    |    |           | <i>(Flower Effect channel has to be set &gt; 0 DMX)</i>                                                                                                                                        |                 |
|              |    |    |    |    |    | 0         | Open position - without macros (0=default)                                                                                                                                                     | step            |
|              |    |    |    |    |    |           | <i>(Flower effect colour macros have priority to RGBW colours/Virtual colour wheel, Flower effect colours, channels Flower effect-Shutter/strobe and Flower effect-dimmer has to be open )</i> |                 |
|              |    |    |    |    |    | 1-2       | Flower Effect colour macro 1                                                                                                                                                                   | step            |
|              |    |    |    |    |    | 3-4       | Flower Effect colour macro 2                                                                                                                                                                   | step            |
|              |    |    |    |    |    | 5-6       | Flower Effect colour macro 3                                                                                                                                                                   | step            |
|              |    |    |    |    |    | :         |                                                                                                                                                                                                |                 |
|              |    |    |    |    |    | 119-120   | Flower Effect colour macro 60                                                                                                                                                                  | step            |
|              |    |    |    |    |    | 121-255   | Raw DMX                                                                                                                                                                                        | proportional    |
| 23           | 28 | 28 | 28 | 28 | 28 |           | <b>Flower Effect - Shutter/ strobe</b>                                                                                                                                                         |                 |
|              |    |    |    |    |    | 0 - 31    | Shutter closed                                                                                                                                                                                 | step            |
|              |    |    |    |    |    | 32 - 63   | Shutter open (32=default)                                                                                                                                                                      | step            |
|              |    |    |    |    |    | 64 - 95   | Strobe-effect from slow to fast                                                                                                                                                                | proportional    |
|              |    |    |    |    |    | 96 - 127  | Shutter open                                                                                                                                                                                   | step            |
|              |    |    |    |    |    | 128 - 143 | Opening pulse in sequences from slow to fast                                                                                                                                                   | proportional    |
|              |    |    |    |    |    | 144 - 159 | Closing pulse in sequences from fast to slow                                                                                                                                                   | proportional    |
|              |    |    |    |    |    | 160 - 191 | Shutter open                                                                                                                                                                                   | step            |
|              |    |    |    |    |    | 192 - 223 | Random strobe-effect from slow to fast                                                                                                                                                         | proportional    |

# DMX protocol

| Mode/channel |    |    |    |    |    | DMX Value | Function                                                                                          | Type of control |
|--------------|----|----|----|----|----|-----------|---------------------------------------------------------------------------------------------------|-----------------|
| 5            | 6  | 7  | 8  | 9  | 10 |           |                                                                                                   |                 |
|              |    |    |    |    |    | 224 - 255 | Shutter open                                                                                      | step            |
| 24           | 29 | 29 | 29 | 29 | 29 | 0 - 255   | <b>Flower Effect - Dimmer intensity (8 bit)</b><br>Dimmer intensity from 0% to 100% (255=default) | proportional    |
| 25           | 30 | 30 | 30 | 30 | 30 |           | <b>Zoom</b>                                                                                       |                 |
|              |    |    |    |    |    | 0-255     | Zoom from max. to min.beam angle (128=default)                                                    | proportional    |
| *            | 31 | 31 | 31 | 31 | 31 |           | <b>Zoom - fine</b>                                                                                |                 |
|              |    |    |    |    |    | 0-255     | Fine zooming (0=default)                                                                          | proportional    |
| *            | 32 | *  | *  | 32 | 32 |           | <b>Pattern selection</b>                                                                          |                 |
|              |    |    |    |    |    | 0-2       | No pattern (0=default)                                                                            |                 |
|              |    |    |    |    |    | 3-4       | Pattern 1                                                                                         | step            |
|              |    |    |    |    |    | 5-6       | Pattern 2                                                                                         | step            |
|              |    |    |    |    |    | 7-8       | Pattern 3                                                                                         | step            |
|              |    |    |    |    |    | 9-10      | Pattern 4                                                                                         | step            |
|              |    |    |    |    |    | 11-12     | Pattern 5                                                                                         | step            |
|              |    |    |    |    |    | 13-14     | Pattern 6                                                                                         | step            |
|              |    |    |    |    |    | 15-16     | Pattern 7                                                                                         | step            |
|              |    |    |    |    |    | 17-18     | Pattern 8                                                                                         | step            |
|              |    |    |    |    |    | 19-20     | Pattern 9                                                                                         | step            |
|              |    |    |    |    |    | 21-22     | Pattern 10                                                                                        | step            |
|              |    |    |    |    |    | 23-24     | Pattern 11                                                                                        | step            |
|              |    |    |    |    |    | 25-26     | Pattern 12                                                                                        | step            |
|              |    |    |    |    |    | 27-28     | Pattern 13                                                                                        | step            |
|              |    |    |    |    |    | 29-30     | Pattern 14                                                                                        | step            |
|              |    |    |    |    |    | 31-255    | RAW DMX                                                                                           | proportional    |
| *            | 33 | *  | *  | 33 | 33 |           | <b>Pattern - Repeat (Size)</b>                                                                    |                 |
|              |    |    |    |    |    | 0-2       | Variant 1 (0=default)                                                                             | step            |
|              |    |    |    |    |    | 3-4       | Variant 2                                                                                         | step            |
|              |    |    |    |    |    | 5-6       | Variant 3                                                                                         | step            |
|              |    |    |    |    |    | 7-8       | Variant 4                                                                                         | step            |
|              |    |    |    |    |    | 9-10      | Variant 5                                                                                         | step            |
|              |    |    |    |    |    | 11-12     | Variant 6                                                                                         | step            |
|              |    |    |    |    |    | 13-14     | Variant 7                                                                                         | step            |
|              |    |    |    |    |    | 15-16     | Variant 8                                                                                         | step            |
|              |    |    |    |    |    | 17-18     | Variant 9                                                                                         | step            |
|              |    |    |    |    |    | 19-20     | Variant 10                                                                                        | step            |
|              |    |    |    |    |    | 21-22     | Variant 11                                                                                        | step            |
|              |    |    |    |    |    | 23-255    | Raw DMX                                                                                           | proportional    |
| *            | 34 | *  | *  | 34 | 34 |           | <b>Pattern - Rotation</b>                                                                         |                 |
|              |    |    |    |    |    | 0         | No rotation (0=default)                                                                           | step            |
|              |    |    |    |    |    | 1-127     | Pattern indexing                                                                                  | proportional    |
|              |    |    |    |    |    | 128-190   | Forwards rotation from fast to slow                                                               | proportional    |
|              |    |    |    |    |    | 191-192   | Pause - without rotation                                                                          | step            |
|              |    |    |    |    |    | 193-255   | Backwards rotation from slow to fast                                                              | proportional    |
| *            | 35 | *  | *  | 35 | 35 |           | <b>Pattern - Fade</b>                                                                             |                 |
|              |    |    |    |    |    | 0         | Snap (0=default)                                                                                  | step            |
|              |    |    |    |    |    | 1-255     | Fade from min. to max.                                                                            | proportional    |
| *            | 36 | *  | *  | 36 | 36 |           | <b>Pattern -Transition</b>                                                                        |                 |
|              |    |    |    |    |    | 0         | No fade (0=default)                                                                               | step            |

# DMX protocol

| Mode/channel |    |   |   |    |    | DMX Value | Function                                                                                    | Type of control |
|--------------|----|---|---|----|----|-----------|---------------------------------------------------------------------------------------------|-----------------|
| 5            | 6  | 7 | 8 | 9  | 10 |           |                                                                                             |                 |
|              |    |   |   |    |    | 1         | 100ms                                                                                       | step            |
|              |    |   |   |    |    | 255       | 4 sec                                                                                       | step            |
| *            | 37 | * | * | 37 | 37 | 0         | <b>Pattern - Crossfade</b>                                                                  | step            |
|              |    |   |   |    |    | 1-255     | Background<br>Crossfade between Background and Pattern 0-100% (255=default)                 | proportional    |
| *            | 38 | * | * | 38 | 38 | 0 - 255   | <b>Pattern - Red (8-bit)</b><br>Colour saturation control - coarse 0-100% (255=default)     | proportional    |
| *            | 39 | * | * | 39 | 39 | 0 - 255   | <b>Pattern - Green (8-bit)</b><br>Colour saturation control - coarse 0-100% (255=default)   | proportional    |
| *            | 40 | * | * | 40 | 40 | 0 - 255   | <b>Pattern - Blue (8-bit)</b><br>Colour saturation control - coarse 0-100% (255=default)    | proportional    |
| *            | 41 | * | * | 41 | 41 | 0 - 255   | <b>Pattern - White (8-bit)</b><br>Colour saturation control - coarse 0-100% (255=default)   | proportional    |
| *            | 42 | * | * | 42 | 42 | 0-2       | <b>Pattern - Colour macro</b><br>No macro (0=default)                                       | step            |
|              |    |   |   |    |    |           | <i>Macros 1-15 allow control of colour change speed from max. to min.</i>                   |                 |
|              |    |   |   |    |    | 3-8       | Macro 1                                                                                     | proportional    |
|              |    |   |   |    |    | 9-14      | Macro 2                                                                                     | proportional    |
|              |    |   |   |    |    | 15-20     | Macro 3                                                                                     | proportional    |
|              |    |   |   |    |    | 21-26     | Macro 4                                                                                     | proportional    |
|              |    |   |   |    |    | 27-32     | Macro 5                                                                                     | proportional    |
|              |    |   |   |    |    | 33-38     | Macro 6                                                                                     | proportional    |
|              |    |   |   |    |    | 39-44     | Macro 7                                                                                     | proportional    |
|              |    |   |   |    |    | 45-50     | Macro 8                                                                                     | proportional    |
|              |    |   |   |    |    | 51-56     | Macro 9                                                                                     | proportional    |
|              |    |   |   |    |    | 57-62     | Macro 10                                                                                    | proportional    |
|              |    |   |   |    |    | 63-68     | Macro 11                                                                                    | proportional    |
|              |    |   |   |    |    | 69-74     | Macro 12                                                                                    | proportional    |
|              |    |   |   |    |    | 75-80     | Macro 13                                                                                    | proportional    |
|              |    |   |   |    |    | 81-86     | Macro 14                                                                                    | proportional    |
|              |    |   |   |    |    | 87-92     | Macro 15                                                                                    | proportional    |
|              |    |   |   |    |    | 93-98     | Macro 16                                                                                    | step            |
|              |    |   |   |    |    | 99-104    | Macro 17                                                                                    | step            |
|              |    |   |   |    |    | 105-110   | Macro 18                                                                                    | step            |
|              |    |   |   |    |    | 111-255   | Raw DMX                                                                                     | proportional    |
| *            | 43 | * | * | 43 | 43 | 0 - 31    | <b>Pattern - Shutter/ strobe</b><br>Shutter closed                                          | step            |
|              |    |   |   |    |    | 32 - 63   | Shutter open (32=default)                                                                   | step            |
|              |    |   |   |    |    | 64 - 95   | Strobe effect from slow to fast                                                             | proportional    |
|              |    |   |   |    |    | 96 - 127  | Shutter open                                                                                | step            |
|              |    |   |   |    |    | 128 - 143 | Opening pulse in sequences from slow to fast                                                | proportional    |
|              |    |   |   |    |    | 144 - 159 | Closing pulse in sequences from fast to slow                                                | proportional    |
|              |    |   |   |    |    | 160 - 191 | Shutter open                                                                                | step            |
|              |    |   |   |    |    | 192 - 223 | Random strobe effect from slow to fast                                                      | proportional    |
|              |    |   |   |    |    | 224 - 255 | Shutter open                                                                                | step            |
| *            | 44 | * | * | 44 | 44 | 0 - 255   | <b>Pattern - Dimmer intensity (8 bit)</b><br>Dimmer intensity from 0% to 100% (255=default) | proportional    |

# DMX protocol

| Mode/channel                                                                                                  |    |    |     |     |     | DMX Value | Function                                        | Type of control |
|---------------------------------------------------------------------------------------------------------------|----|----|-----|-----|-----|-----------|-------------------------------------------------|-----------------|
| 5                                                                                                             | 6  | 7  | 8   | 9   | 10  |           |                                                 |                 |
| 26                                                                                                            | 45 | 32 | 32  | 45  | 45  |           | <b>Master Shutter/ strobe</b>                   |                 |
|                                                                                                               |    |    |     |     |     | 0 - 31    | Shutter closed                                  | step            |
|                                                                                                               |    |    |     |     |     | 32 - 63   | Shutter open (32=default)                       | step            |
|                                                                                                               |    |    |     |     |     | 64 - 95   | Strobe effect from slow to fast                 | proportional    |
|                                                                                                               |    |    |     |     |     | 96 - 127  | Shutter open                                    | step            |
|                                                                                                               |    |    |     |     |     | 128 - 143 | Opening pulse in sequences from slow to fast    | proportional    |
|                                                                                                               |    |    |     |     |     | 144 - 159 | Closing pulse in sequences from fast to slow    | proportional    |
|                                                                                                               |    |    |     |     |     | 160 - 191 | Shutter open                                    | step            |
|                                                                                                               |    |    |     |     |     | 192 - 223 | Random strobe effect from slow to fast          | proportional    |
|                                                                                                               |    |    |     |     |     | 224 - 255 | Shutter open                                    | step            |
| 27                                                                                                            | 46 | 33 | 33  | 46  | 46  |           | <b>Master Dimmer intensity (8 bit)</b>          |                 |
|                                                                                                               |    |    |     |     |     | 0 - 255   | Dimmer intensity from 0% to 100% (0=default)    | proportional    |
| *                                                                                                             | 47 | 34 | 34  | 47  | 47  |           | <b>Master Dimmer intensity - fine (16 bit)</b>  |                 |
|                                                                                                               |    |    |     |     |     | 0 - 255   | Fine dimming (0=default)                        | proportional    |
| *                                                                                                             | *  | 35 | 35  | 48  | 48  |           | <b>Red pixel 1</b>                              |                 |
|                                                                                                               |    |    |     |     |     | 0-255     | Red LED saturation control 0-100% (0=default)   | proportional    |
| *                                                                                                             | *  | 36 | 36  | 49  | 49  |           | <b>Green pixel 1</b>                            |                 |
|                                                                                                               |    |    |     |     |     | 0-255     | Green LED saturation control 0-100% (0=default) | proportional    |
| *                                                                                                             | *  | 37 | 37  | 50  | 50  |           | <b>Blue pixel 1</b>                             |                 |
|                                                                                                               |    |    |     |     |     | 0-255     | Blue LED saturation control 0-100% (0=default)  | proportional    |
| *                                                                                                             | *  | *  | 38  | *   | 51  |           | <b>White pixel 1</b>                            |                 |
|                                                                                                               |    |    |     |     |     | 0-255     | White LED saturation control 0-100% (0=default) | proportional    |
|                                                                                                               |    |    |     |     |     |           | :                                               |                 |
| *                                                                                                             | *  | 89 | 107 | 102 | 120 |           | <b>Red pixel 19</b>                             |                 |
|                                                                                                               |    |    |     |     |     | 0-255     | Red LED saturation control 0-100% (0=default)   | proportional    |
| *                                                                                                             | *  | 90 | 108 | 103 | 121 |           | <b>Green pixel 19</b>                           |                 |
|                                                                                                               |    |    |     |     |     | 0-255     | Green LED saturation control 0-100% (0=default) | proportional    |
| *                                                                                                             | *  | 91 | 109 | 104 | 122 |           | <b>Blue pixel 19</b>                            |                 |
|                                                                                                               |    |    |     |     |     | 0-255     | Blue LED saturation control 0-100% (0=default)  | proportional    |
| *                                                                                                             | *  | *  | 110 | *   | 123 |           | <b>White pixel 19</b>                           |                 |
|                                                                                                               |    |    |     |     |     | 0-255     | White LED saturation control 0-100% (0=default) | proportional    |
| * function is active only 10 seconds after switching the fixture on                                           |    |    |     |     |     |           |                                                 |                 |
| ** In the Tungsten effect simulation the Dimmer channel imitates behaviour of the halogen lamp during dimming |    |    |     |     |     |           |                                                 |                 |
| *** Select RGB or CMY mixing mode on channel "Power/Special functions"                                        |    |    |     |     |     |           |                                                 |                 |
| Copyright © 2016 -2020 Robe Lighting s.r.o. - All rights reserved                                             |    |    |     |     |     |           |                                                 |                 |

| Robin Spiider - colours on Virtual Colour Wheel |              |                |               |                |
|-------------------------------------------------|--------------|----------------|---------------|----------------|
| Colour name                                     | Red<br>(DMX) | Green<br>(DMX) | Blue<br>(DMX) | White<br>(DMX) |
| Filter 4 (Medium Bastard Amber)                 | 255          | 118            | 0             | 109            |
| Filter 25 (Sunset Red)                          | 255          | 50             | 0             | 3              |
| Filter 19 (Fire)                                | 255          | 13             | 0             | 0              |
| Filter 26 (Bright Red)                          | 255          | 0              | 0             | 0              |
| Filter 58 (Lavender)                            | 117          | 0              | 97            | 110            |
| Filter 68 (Sky Blue)                            | 42           | 195            | 100           | 0              |
| Filter 36 (Medium Pink)                         | 255          | 74             | 8             | 24             |
| Filter 89 (Moss Green)                          | 69           | 245            | 0             | 3              |
| Filter 88 (Lime Green)                          | 187          | 226            | 0             | 0              |
| Filter 90 (Dark Yellow Green)                   | 0            | 255            | 1             | 0              |
| Filter 49 (Medium Purple)                       | 255          | 0              | 27            | 0              |
| Filter 52 (Light Lavender)                      | 227          | 86             | 14            | 134            |
| Filter 102 (Light Amber)                        | 233          | 164            | 0             | 0              |
| Filter 103 (Straw)                              | 207          | 137            | 0             | 33             |
| Filter 140 (Summer Blue)                        | 0            | 161            | 7             | 218            |
| Filter 124 (Dark Green)                         | 29           | 255            | 0             | 12             |
| Filter 106 (Primary Red)                        | 242          | 1              | 1             | 0              |
| Filter 111 (Dark Pink)                          | 255          | 67             | 11            | 49             |
| Filter 115 (Peacock Blue)                       | 0            | 255            | 28            | 41             |
| Filter 126 (Mauve)                              | 255          | 0              | 39            | 0              |
| Filter 117 (Steel Blue)                         | 163          | 255            | 14            | 161            |
| Filter 118 (Light Blue)                         | 0            | 255            | 61            | 34             |
| Filter 122 (Fern Green)                         | 98           | 255            | 3             | 2              |
| Filter 182 (Light Red)                          | 255          | 16             | 2             | 0              |
| Filter 121 (Filter Green)                       | 165          | 255            | 0             | 0              |
| Filter 128 (Bright Pink)                        | 255          | 0              | 13            | 32             |
| Filter 131 (Marine Blue)                        | 73           | 245            | 27            | 30             |
| Filter 132 (Medium Blue)                        | 0            | 193            | 113           | 0              |
| Filter 134 (Golden Amber)                       | 191          | 83             | 0             | 0              |
| Filter 135 (Deep Golden Amber)                  | 255          | 52             | 0             | 0              |
| Filter 136 (Pale Lavender)                      | 164          | 96             | 29            | 54             |
| Filter 137 (Special Lavender)                   | 130          | 60             | 63            | 102            |
| Filter 138 (Pale Green)                         | 226          | 255            | 0             | 51             |
| Filter 798 (Chrysalis Pink)                     | 49           | 0              | 98            | 14             |
| Filter 141 (Bright Blue)                        | 8            | 176            | 62            | 0              |
| Filter 147 (Apricot)                            | 215          | 104            | 0             | 15             |
| Filter 148 (Bright Rose)                        | 255          | 3              | 0             | 37             |
| Filter 152 (Pale Gold)                          | 202          | 115            | 0             | 39             |
| Filter 154 (Pale Rose)                          | 214          | 107            | 0             | 48             |
| Filter 157 (Pink)                               | 255          | 56             | 5             | 48             |
| Filter 143 (Pale Navy Blue)                     | 0            | 193            | 72            | 148            |
| Filter 162 (Bastard Amber)                      | 223          | 153            | 6             | 41             |
| Filter 164 (Flame Red)                          | 255          | 27             | 0             | 4              |
| Filter 165 (Daylight Blue)                      | 23           | 236            | 87            | 81             |
| Filter 169 (Lilac Tint)                         | 206          | 123            | 0             | 110            |
| Filter 170 (Deep Lavender)                      | 235          | 123            | 41            | 33             |
| Filter 172 (Lagoon Blue)                        | 0            | 255            | 54            | 0              |

| <b>Colour name</b>                     | <b>Red<br/>(DMX)</b> | <b>Green<br/>(DMX)</b> | <b>Blue<br/>(DMX)</b> | <b>White<br/>(DMX)</b> |
|----------------------------------------|----------------------|------------------------|-----------------------|------------------------|
| Filter 194 (Surprise Pink)             | 110                  | 0                      | 21                    | 255                    |
| Filter 180 (Dark Lavender)             | 136                  | 43                     | 181                   | 89                     |
| Filter 181 (Congo Blue)                | 37                   | 0                      | 255                   | 0                      |
| Filter 197 (Alice Blue)                | 107                  | 220                    | 129                   | 0                      |
| Filter 201 (Full C.T. Blue)            | 179                  | 255                    | 57                    | 34                     |
| Filter 202 (Half C.T. Blue)            | 217                  | 255                    | 37                    | 3                      |
| Filter 203 (Quarter C.T. Blue)         | 236                  | 255                    | 30                    | 3                      |
| Filter 204 (Full C.T. Orange)          | 230                  | 125                    | 3                     | 7                      |
| Filter 219 (Fluorescent Green)         | 99                   | 148                    | 16                    | 50                     |
| Filter 206 (Quarter C.T. Orange)       | 204                  | 140                    | 0                     | 57                     |
| Filter 247 (Filter Minus Green)        | 255                  | 81                     | 0                     | 193                    |
| Filter 248 (Half Minus Green)          | 255                  | 144                    | 0                     | 137                    |
| Filter 281 (Three Quarter C.T. Blue)   | 225                  | 255                    | 72                    | 160                    |
| Filter 285 (Three Quarter C.T. Orange) | 199                  | 124                    | 0                     | 17                     |
| Filter 352 (Glacier Blue)              | 0                    | 161                    | 65                    | 90                     |
| Filter 353 (Lighter Blue)              | 0                    | 115                    | 37                    | 97                     |
| Filter 507 (Madge)                     | 255                  | 31                     | 0                     | 0                      |
| Filter 778 (Millennium Gold)           | 255                  | 65                     | 0                     | 0                      |
| Filter 793 (Vanity Fair)               | 255                  | 0                      | 13                    | 16                     |