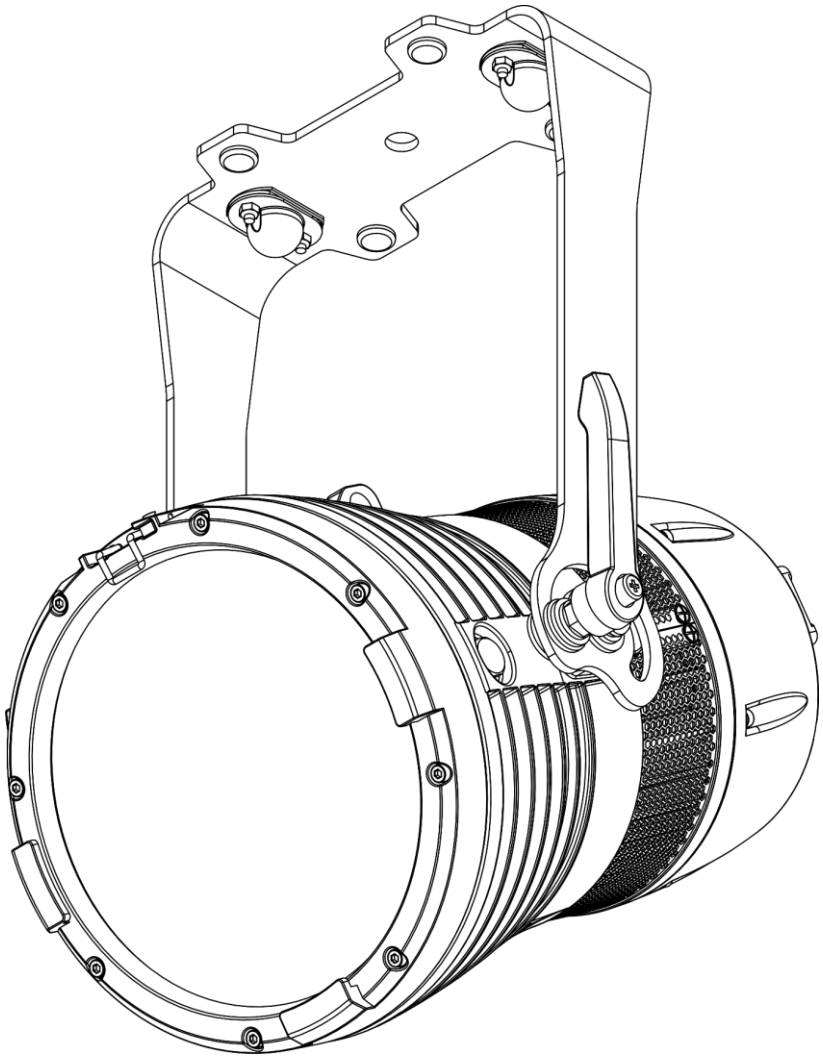
MANUAL



ENGLISH

Spectral Revo 6 IP65 V1

Order code: 43640

Table of contents

Warning

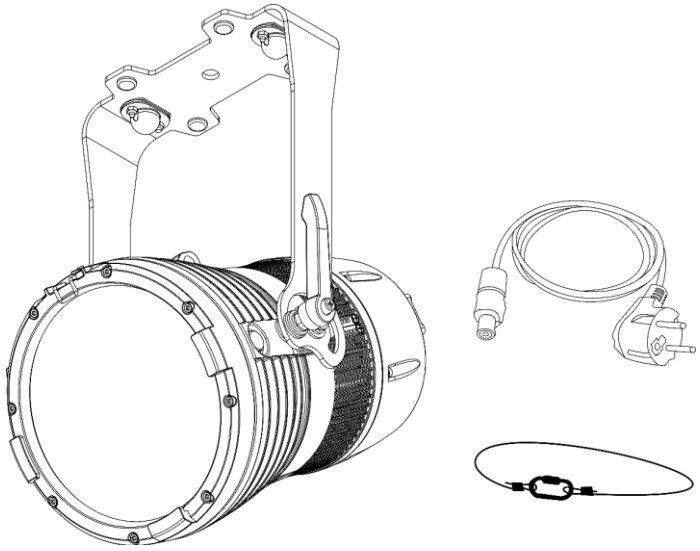
For your own safety, please read this user manual carefully before your initial start-up!

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture will be returned in the original factory box and packing.

Your shipment includes:

- Showtec Spectral Revo 6 IP65
- Schuko to PowerCON True1 power cable (1,5 m)
- Safety cable
- User manual



LED Expected Lifespan

LEDs gradually decline in brightness over time. HEAT is the dominant factor that leads to the acceleration of this decline. Packaged in clusters, LEDs exhibit higher operating temperatures than in ideal or singular optimum conditions. For this reason, when all color LEDs are used at their fullest intensity, life of the LEDs is significantly reduced. If improving the lifespan is of higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity.

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

Safety Instructions

Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow the instructions of this manual

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

Before the initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the device.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes contained in this manual.

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

This device contains no user-serviceable parts. Refer servicing to qualified technicians only.

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.

- Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never lift the fixture holding it by the projector-head, as the mechanics may be damaged. Always hold the fixture by the transport handles.
- Never place any material over the lens.
- Never look directly into the light source.
- Never leave any cables lying around.
- Do not connect this device to a dimmer pack.
- Do not switch the device on and off in short intervals, as this will reduce the device's life.
- Do not touch the device's housing bare-handed during its operation (housing becomes very hot). Allow the fixture to cool for at least 5 minutes before handling.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Only operate the fixture after having checked if the housing is firmly closed and all screws are tightly fastened.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to acids, flammable liquids or gases.
- Always keep the case closed while operating.
- Always allow a free air space of at least 80 cm around the unit for ventilation.
- Always disconnect power from the mains, when device is not used or before cleaning! Only handle the power cord holding it by the plug. Never pull out the plug by tugging the power cord.
- Make sure that the device is not exposed to extreme heat, moisture or dust.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power cord is never crimped or damaged. Check the device and the power cord from time to time.
- If the lens is obviously damaged, it has to be replaced.
- If device was dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- 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.
- If your Showtec device fails to work properly, discontinue the use immediately. Pack the unit securely (preferably in the original packing material) and return it to your Showtec dealer for service.
- For adult use only. The fixture must be installed beyond the reach of children. Never leave the unit running unattended.
- The user is responsible for correct positioning and operating of the Spectral. The manufacturer will not accept liability for damages caused by the misuse or incorrect installation of this device.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- WARRANTY: Till one year after date of purchase.

CAUTION! Eyedamages!!!
Avoid looking directly into the lightsource!!!
(meant especially for epileptics)!!!

Operating Determinations

- This device is not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.
- The minimum distance between light output and the illuminated surface must be bigger than 0,8 m.
- The maximum ambient temperature t_a = 40 °C must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 40 °C.
- If this device is operated in any other way than the one described in this manual, the product may suffer damages and the warranty becomes void.
- Any other operation may lead to dangers like short-circuit, burns, electric shock, crash, etc.

You endanger your own safety and the safety of others!

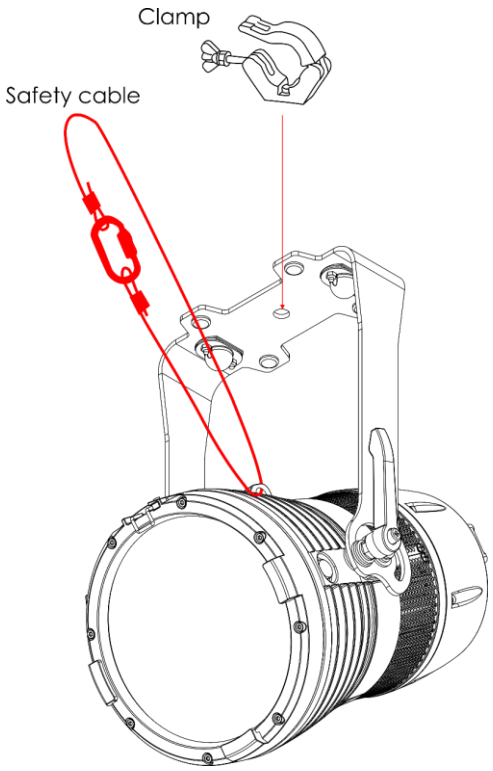
Rigging

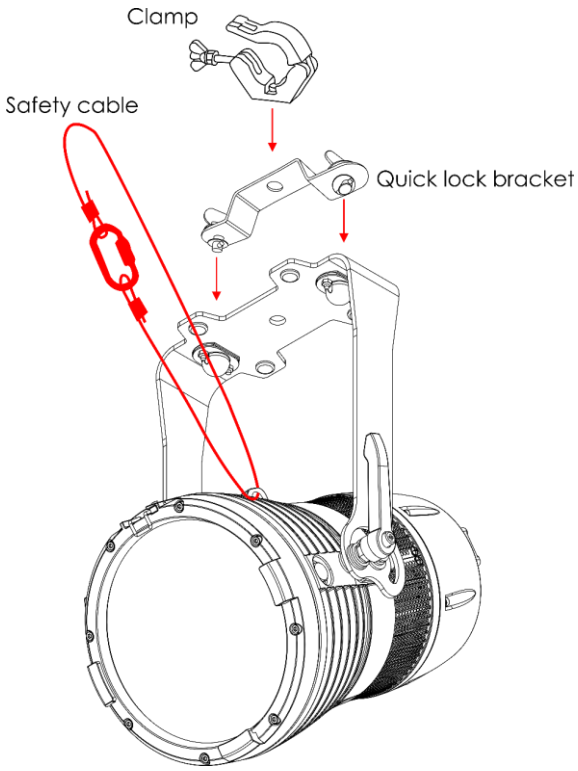
Please follow the European and national guidelines concerning rigging, trussing and all other safety issues.

Do not attempt the installation yourself!
Always let the installation be carried out by an authorized dealer!

Procedure:

- If the Spectral is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the Spectral with the mounting bracket to the trussing system.
- The Spectral must never be fixed swinging freely in the room.
- The installation must always be secured with a safety attachment, e.g. an appropriate safety net or safety cable.
- When rigging, derigging or servicing the Spectral, always make sure, that the area below the installation site is secured and that there are not any unauthorized people around.





The Spectral Revo 6 IP65 can be placed on a flat stage floor or mounted to any kind of truss with a clamp or a combination of a quick lock bracket and a clamp.

Improper installation can cause serious injuries and/or damage of property!

Connection with the Mains

Connect the device to the mains with the power-plug.
Always check if the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	PHASE
N	BLUE	BLACK	SILVER	NEUTRAL
⏚	YELLOW/GREEN	GREEN	GREEN	PROTECTIVE GROUND

Make sure that the device is always properly connected to the earth!

Improper installation can cause serious injuries and/or damage of property!

Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.com and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

01) Your name
02) Your address
03) Your phone number
04) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any short-comings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to report and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless agreed otherwise in writing.

Complaints against us must be prepared in writing or sent by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement from which the obligation is resulting.

Description of the Device

Features

The Spectral Revo 6 is an IP-65 rated outdoor fixture with a single lens. The 125-W custom Osram RGBALC LED source guarantees homogenous output and is able to produce a full spectrum of light.

- Input voltage: 100-240 V AC, 50/60 Hz
- Power consumption: 145 W max
- Light source: 125 W custom Osram RGBALC LED Array
- Color range: 16,7 million additive colors with full saturation control
- Maximum flux: 3051 lm
- Peak intensity: 28987 cd
- Dimmer: 0-100 %
- Strobe: 0-20 Hz
- Beam angle: 17°
- Control protocol: DMX-512, RDM
- DMX personalities: Basic (3 CH), CLR (6 CH), HSIC (7 CH), SSP (9 CH), Tour (13 CH), TR16 (20 CH)
- Control: Static Colors, Auto, Master/Slave, DMX-512
- On-board: OLED display
- Housing: die-cast aluminum, black
- Connections: IP-65 rated power connectors True1 IN/OUT, IP-65 rated 5-pin DMX IN/OUT connectors
- Cooling: forced convection
- IP Rating: IP65
- Dimensions: 425 x 320 x 219 mm (L x W x H) (including bracket)
- Weight: 6,1 kg

Front View

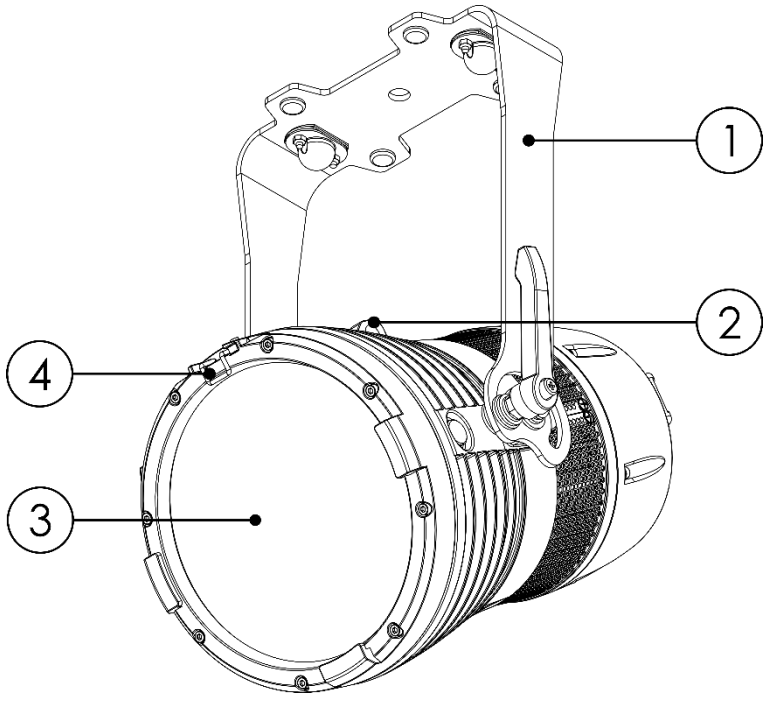


Fig. 01

01) Mounting bracket with 2 adjustment screws
02) Safety eye
03) 125 W custom Osram RGBALC LED Array
04) Color frame retaining clip

Back View

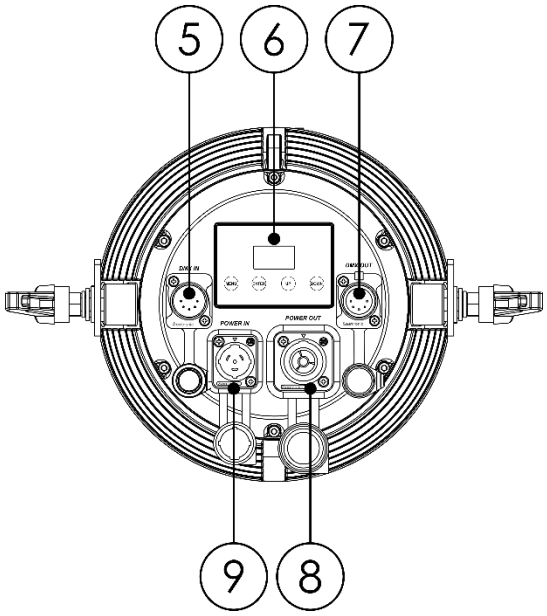


Fig. 02

05) IP-65 rated 5-pin DMX signal connector IN
06) Control panel: OLED display and touch buttons
07) IP-65 rated 5-pin DMX signal connector OUT
08) IP-65 rated power connector True 1 OUT
09) IP-65 rated power connector True 1 IN

Installation

Remove all packing materials from the Spectral Revo 6 IP65. Check if all foam and plastic padding is removed. Connect all cables.
Do not supply power before the whole system is set up and connected properly.
Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

Setup and Operation

Follow the directions below, as they pertain to your preferred operation mode.
Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120 V specification product on 230 V power, or vice versa.
Connect the device to the main power supply.

Control Modes

There are 4 modes:

- Manual (Static Colors)
- Built-in and Custom Programs (Auto Programs)
- Master/Slave
- DMX-512 (3CH, 6CH, 7CH, 9CH, 13CH, 20CH)

One Spectral (Static Colors, Auto Programs)

01) Fasten the effect light to a firm trussing or mount it on flat surface. Leave at least 0,8 m on all sides for air circulation.
02) Secure the device with the supplied safety cable.
03) Plug the end of the electric mains power cord into a proper electric power supply socket.
04) When the Spectral is not connected with a DMX cable, it functions as a stand-alone device. Please see pages 16-17 for more information about the Static Colors and Auto Programs.

Multiple Spectrals (Master/Slave control)

01) Fasten the effect light onto firm trussing or mount it on flat surface. Leave at least 0,8 m on all sides for air circulation.
02) Secure the device with the supplied safety cable.
03) Plug the end of the electric mains power cord into a proper electric power supply socket.
04) Use a 5-pin XLR cable to connect the Spectral to other devices.

The pins:

1. Earth
2. Signal (-)
3. Signal (+)
4. N/C
5. N/C

05) Link the units as shown in Fig. 03. Connect the first unit's DMX "out" socket with the second unit's "in" socket, using a DMX cable. Repeat this process to link the rest of the units. Refer to **3. Run Mode** on page 17 and **8.8. Mode Settings** on page 20 to set up the master and the slave devices. You can set the desired operation mode on the master device and all slave devices will react the same as the master device.

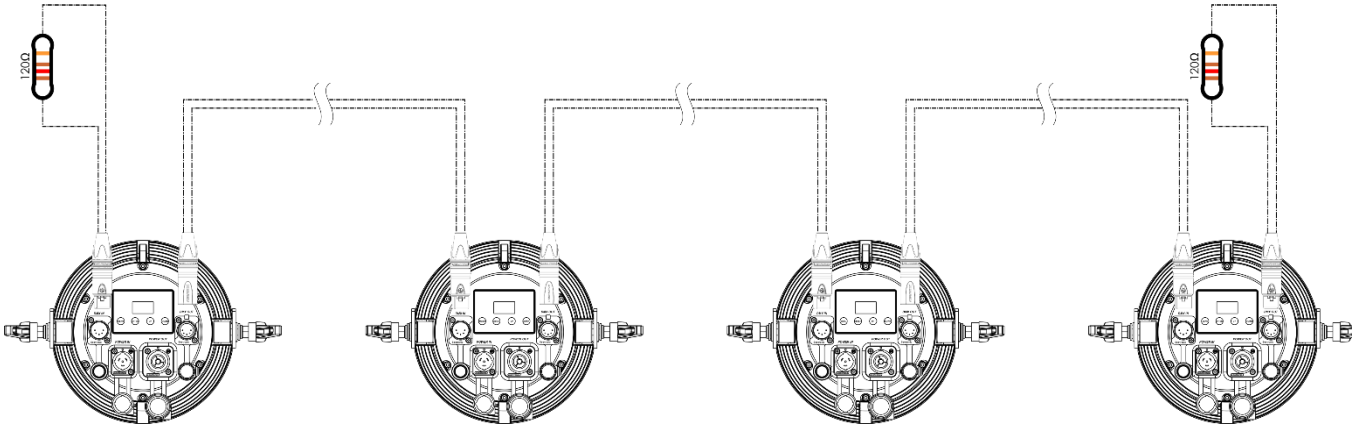
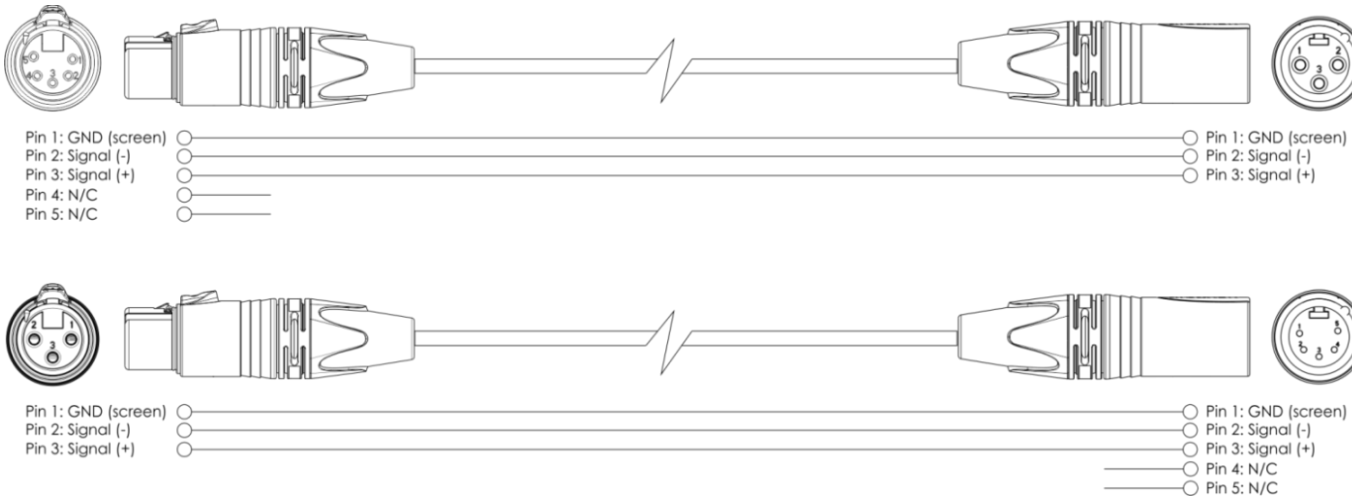


Fig. 03

Multiple Spectrals (DMX Control)

01) Fasten the effect light to a firm trussing or mount it on flat surface. Leave at least 0,8 m on all sides for air circulation.
02) Secure the device with the supplied safety cable.
03) Use a 5-pin DMX cable to connect the Spectral and other devices.



04) Link the units as shown in Fig. 04. Connect a light controller to the first unit's DMX "in" socket, using a DMX cable. Connect the first unit's "out" socket with the second unit's "in" socket, using a DMX cable. Repeat this process to link the rest of the units.
05) Supply electric power: Plug electric mains power cords into each unit's power IN socket, then plug the other end of the mains power cord into proper electric power supply sockets, starting with the first unit. Do not supply power before the whole system is set up and connected properly.

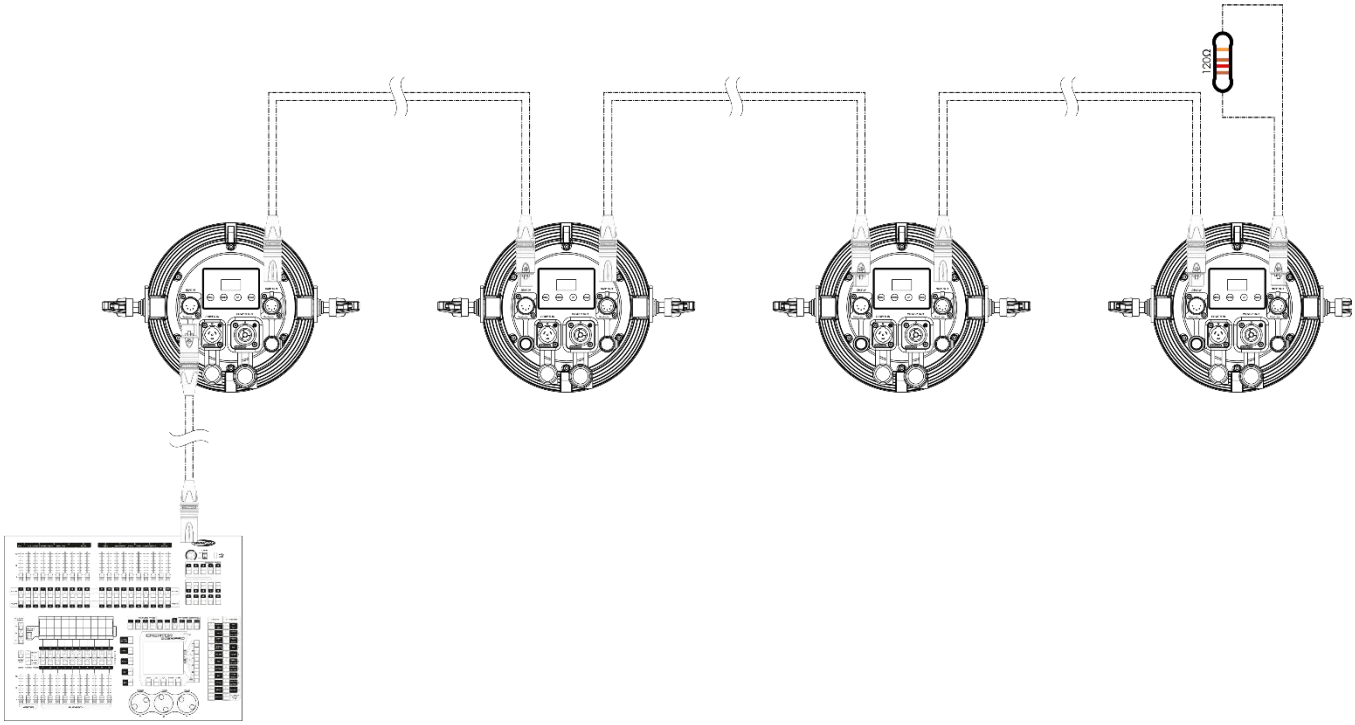


Fig. 04

Note : Link all cables before connecting electric power

Fixture Linking

You will need a serial data link to run light shows of one or more fixtures using a DMX-512 controller or to run synchronized shows of two or more fixtures set to a master/slave operating mode. The combined number of channels required by all the fixtures on a serial data link determines the number of fixtures the data link can support.

Important: Fixtures on a serial data link must be daisy-chained in a single line. To comply with the EIA-485 standard, no more than 30 devices should be connected on one data link. Connecting more than 30 fixtures on one serial data link without the use of a DMX optically isolated splitter may result in deterioration of the digital DMX signal.
Maximum recommended DMX data link distance: 100 meters
Maximum recommended number of fixtures on a DMX data link: 30 fixtures
Maximum recommended number of fixtures on a power link: @110 V: 10 fixtures
Maximum recommended number of fixtures on a power link: @240 V: 24 fixtures

Data Cabling

To link fixtures together, you must obtain data cables. You can purchase DAP Audio certified DMX cables directly from a dealer/distributor or construct your own cable. If you choose to create your own cable, please use data-grade cables that can carry a high quality signal and are less prone to electromagnetic interference.

DAP Audio DMX Data Cables

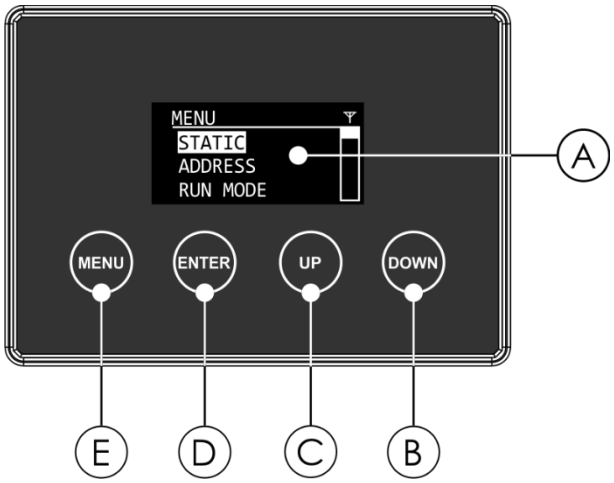
- DAP Audio DMX cable by Neutrik®. **Order code** FL71150 (1,5 m), FL713 (3 m), FL716 (6 m), FL7110 (10 m).
- DAP Audio DMX by Neutrik®. **Order code** FL7275 (0,75 m), FL72150 (1,5 m), FL723 (3 m), FL726 (6 m), FL7210 (10 m).
- DAP Audio 110 Ohm cable with digital signal transmission. **Order code** FL0975 (0,75 m), FL09150 (1,5 m), FL093 (3 m), FL096 (6 m), FL0910 (10 m), FL0915 (15 m), FL0920 (20 m).

Note: Connect the Spectrals with the dedicated special DMX cables for outdoor use.

FL83150	DMX cable 5p XLR IP65, Neutrik®, 1,5 m
FL833	DMX cable 5p XLR IP65, Neutrik®, 3 m
FL836	DMX cable 5p XLR IP65, Neutrik®, 6 m
FL8310	DMX cable 5p XLR IP65, Neutrik®, 10 m
FL8320	DMX cable 5p XLR IP65, Neutrik®, 20 m

The Spectral Revo 6 IP65 can be operated with controller or without controller in stand-alone mode.

Control Panel



A) OLED display
B) DOWN touch button
C) UP touch button
D) ENTER touch button
E) MENU touch button

Fig. 05

DMX Addressing

The control panel on the back side of the device allows you to assign the DMX fixture address, which is the first channel from which the Spectral will respond to the controller. Please note when you use the controller, the unit has **20** channels. When using multiple Spectral fixtures, make sure you set the DMX addresses right. Therefore, the DMX address of the first Spectral should be **1 (001)**; the DMX address of the second Spectral should be **1+20=21 (021)**; the DMX address of the third Spectral should be **21+20=41 (041)**, etc. Make sure that you do not have any overlapping channels in order to control each Spectral correctly. If two or more fixtures are addressed similarly, they will work similarly.

Controlling:

After having addressed all Spectral fixtures, you may now start operating these via your lighting controller.
Note: After switching on, the Spectral will automatically detect whether DMX 512 data is received or not. If there is DMX signal, at the top right corner of the display there will appear an antenna symbol.

If the DMX signal is lost, the antenna symbol will disappear. The problem may be:

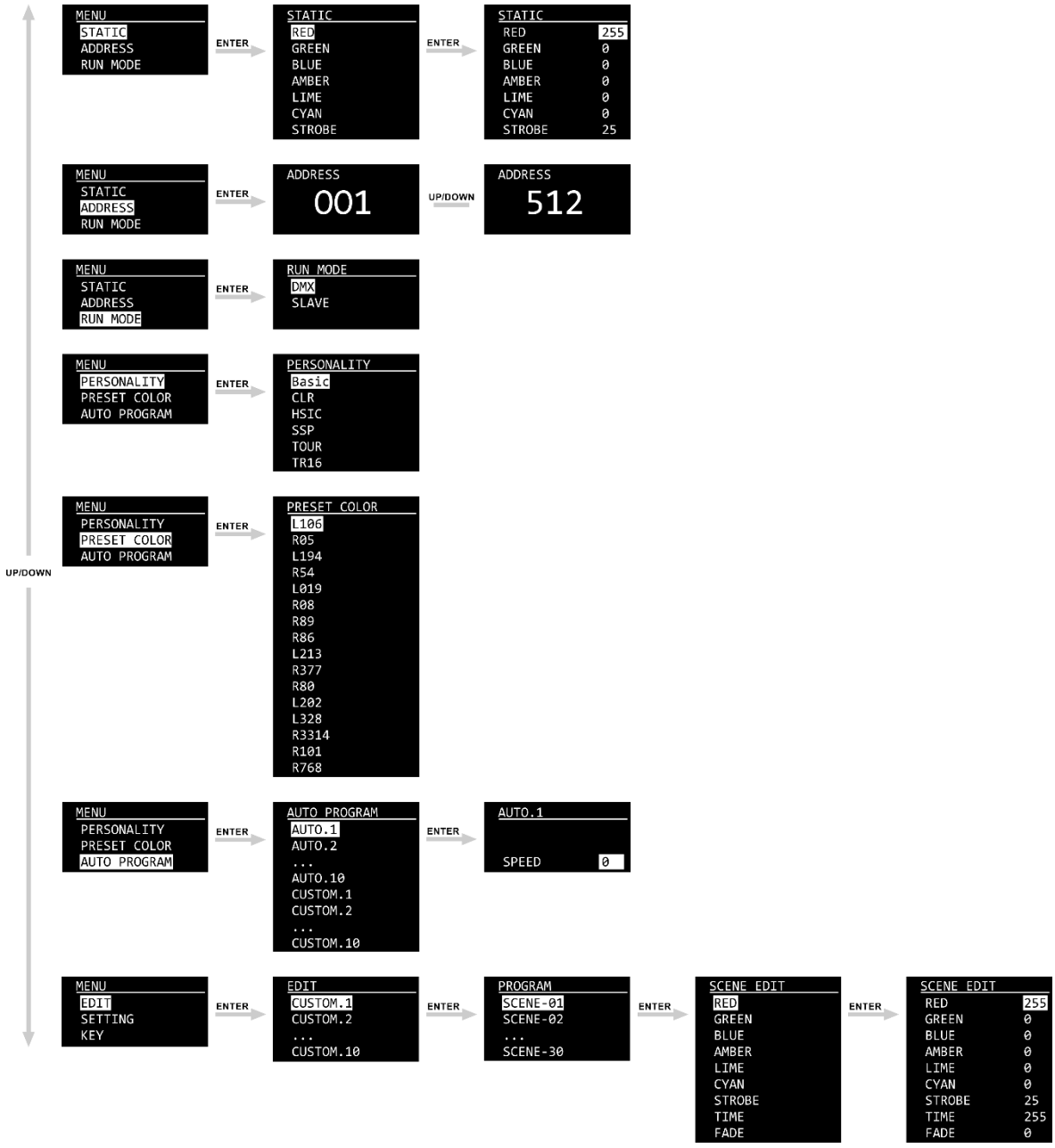
- The DMX cable from the controller is not connected with the input of the Spectral.
- The controller is switched off or defective, the cable or connector is detective, or the signal wires are swapped in the input connector.

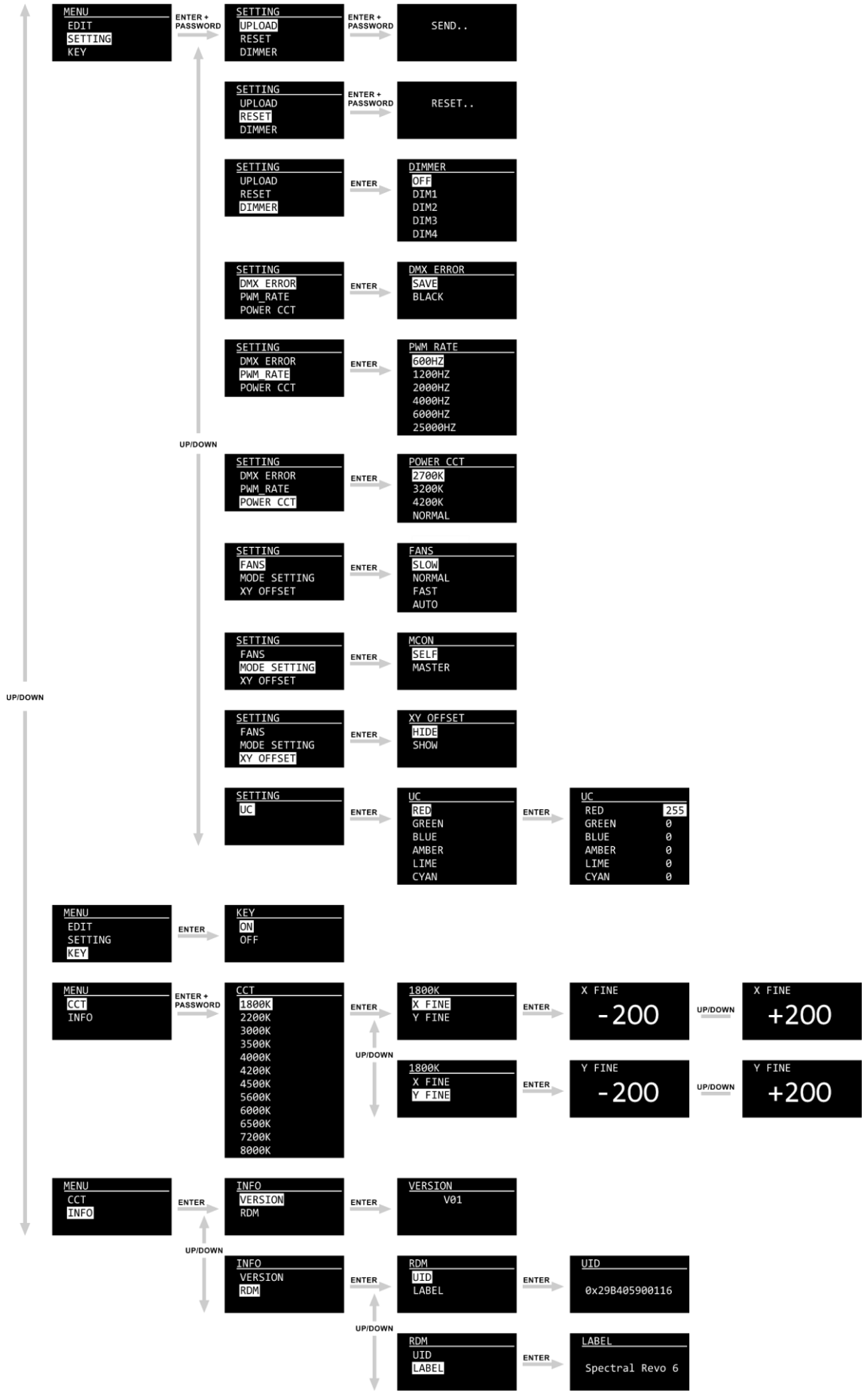
Note: It is necessary to insert a termination plug (with 120 Ohm) in the last fixture in order to ensure proper transmission on the DMX data link.

⚠ Display Off after 10 seconds ⚠

When no button is pressed for 10 seconds, the display will turn off.
To light up the display, press any of the buttons: MENU, ENTER, UP or DOWN.

Menu Overview




MENU
EDIT
SETTING
KEY
ENTER + PASSWORD
SETTING
UPLOAD
RESET
DIMMER
SEND..
RESET..
ENTER
DIMMER
OFF
DIM1
DIM2
DIM3
DIM4
DMX ERROR
PWM_RATE
POWER CCT
SAVE
BLACK
PWM RATE
600HZ
1200HZ
2000HZ
4000HZ
6000HZ
25000HZ
POWER CCT
2700K
3200K
4200K
NORMAL
FANS
MODE SETTING
XY OFFSET
SLOW
NORMAL
FAST
AUTO
MCON
SELF
MASTER
XY OFFSET
HIDE
SHOW
UC
RED
GREEN
BLUE
AMBER
LIME
CYAN
255
0
KEY
ON
OFF
CCT
INFO
1800K
2200K
3000K
3500K
4000K
4200K
4500K
5600K
6000K
6500K
7200K
8000K
X FINE
Y FINE
-200
+200
VERSION
V01
RDM
UID
LABEL
0x29B405900116
Spectral Revo 6
UP/DOWN

Main Menu Options

Upon start-up the display will show the Showtec logo.

By default the display of the device is locked. To unlock the display and access the Main Menu, you will need to enter the password:
01) Press and hold the **MENU** button for 6 seconds to light up the display.
02) Press the **UP/DOWN** buttons in the following order: **UP, DOWN, UP, DOWN**.
03) Press the **ENTER** button to confirm.
To change the settings and remove the display lock, see **9. Key (Display Lock)** on page 21.

If no button is pressed after 10 seconds, the display will turn off. Enter the password to unlock the display. If the display lock is turned off, press any button to turn the display on.

- Use the **UP/DOWN** buttons to navigate through the menus or to increase/decrease numeric values.
- Use the **ENTER** button to open the desired menu or to set the currently selected value.
- Use the **MENU** button to exit the current menu and/or to return to the Main Menu.

The Main Menu has the following options:

01) Press the **UP/DOWN** buttons to navigate through the Main Menu.
02) Press the **ENTER** button to open the submenu.

Note: Some of the submenus require a password. The default password is pressing the **UP/DOWN** buttons in the following order: **UP, DOWN, UP, DOWN**. Deactivating the display lock does not affect the submenu items which by default require a password.

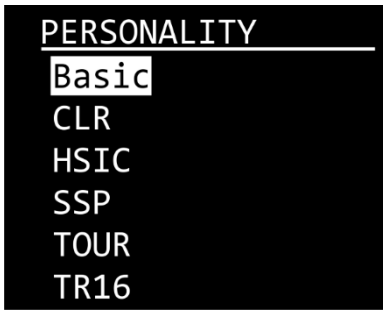
1. Static Colors
In this menu, you can set the static colors to create an infinite range of colors.
01) Press the **UP/DOWN** buttons to scroll through the static colors (RED, GREEN, BLUE, AMBER, LIME, CYAN) and STROBE.
02) Press the **ENTER** button to open the settings submenu.
03) Press the **UP/DOWN** buttons to increase/decrease the values.
    - Color intensity (RED, GREEN, BLUE, AMBER, LIME, CYAN): the adjustment range is between 0-255, from low to high intensity
    - STROBE frequency: the adjustment range is between 0-25, from OFF to high frequency
04) Press the **ENTER** button to set the value and to move to the next setting.

2. DMX Address
In this menu you can set the device's DMX starting address.
01) Press the **UP/DOWN** buttons to set the desired DMX address. The adjustment range is between 001 and 512.
02) Press the **ENTER** button to save the changes.

3. Run Mode
In this menu you can set the control mode of the device.
01) Press the **UP/DOWN** buttons to toggle between the following 2 options:
- DMX – the device will operate in DMX Mode.
- SLAVE – the device will operate as a slave in Master/Slave Mode. It means that it will react the same as the master device.

02) Press the **ENTER** button to confirm your choice.

4. Personality (DMX Channel Modes)
In this menu you can set the DMX Channel Mode (Personality).
01) Press the **UP/DOWN** buttons to select the desired DMX channel mode. There are 6 options available:

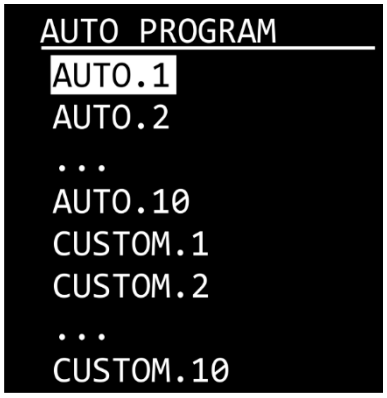


Basic:	3 channels	**SSP:**	9 channels
CLR:	6 channels	**TOUR:**	13 channels
HSIC:	7 channels	**TR16:**	20 channels

02) Press the **ENTER** button to confirm your choice. See pages 22-29 for the DMX Channel Modes.

5. Preset Color
In this menu you can choose a preset color mix.
01) Press the **UP/DOWN** buttons to select one of the 16 presets: L106, R05, L194, R54, L019, R08, R89, R86, L213, R377, R80, L202, L328, R3314, L101, L768.
02) Press the **ENTER** button to confirm your choice.

6. Auto Programs
In this menu you can select a built-in auto program or a custom program. There are 10 uneditable auto programs and 10 custom programs, which can be edited in the Edit menu (see page 18):

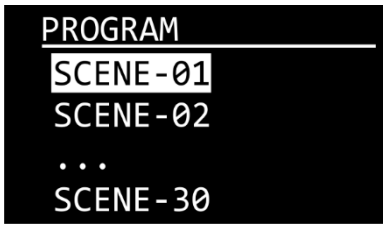


01) Press the **UP/DOWN** buttons to choose an auto or a custom program.
02) Press the **ENTER** button to confirm your choice. If you have chosen one of the auto programs, after pressing the **ENTER** button you can additionally adjust the speed.
03) Press the **UP/DOWN** buttons to set the program speed. The adjustment range is between 0-255, from slow to fast.
04) Press the **ENTER** button to set the speed.

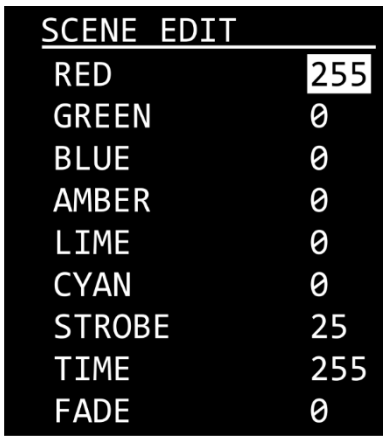
7. Edit

In this menu you can edit the custom programs thus creating your own custom show.

01) Press the **UP/DOWN** buttons to choose the custom program you want to edit (CUSTOM.1 - CUSTOM.10).
02) Press the **ENTER** button to confirm the selection. Each custom program has 30 scenes, which can be edited:



03) Press the **UP/DOWN** buttons to select the desired scene.
04) Press the **ENTER** button to enter the scene settings.
05) Press the **UP/DOWN** buttons to scroll through the 6 colors (RED, GREEN, BLUE, AMBER, LIME, CYAN), and the STROBE, TIME and FADE options.
06) Press the **ENTER** button to open the settings submenu.



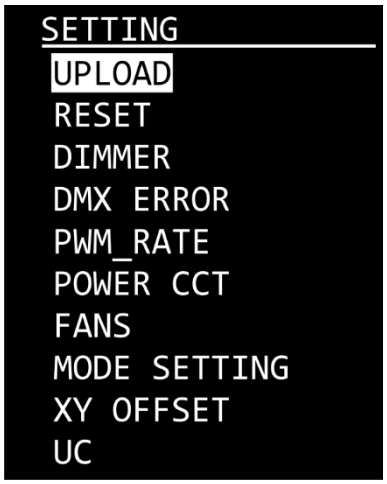
07) Press the **UP/DOWN** buttons to increase/decrease the values.
    - Color intensity (RED, GREEN, BLUE, AMBER, LIME, CYAN): the adjustment range is between 0-255, from low to high intensity
    - STROBE frequency: the adjustment range is between 0-25, from OFF to high frequency
    - TIME (duration of the scene): the adjustment range is between 0-255, from 0 to 255 seconds
    - FADE (transition time between the scenes): the adjustment range is between 0-255, from 0 to 255 seconds.
08) Press the **ENTER** button to set the value and to move to the next setting.

Note: For each custom program you can create 30 scenes, which makes it possible to create 300 customized scenes in total.

8. Settings

In this menu you can adjust the device's settings. This menu requires a **password**. The default password is pressing the **UP/DOWN** buttons in the following order: **UP, DOWN, UP, DOWN**.

01) Enter the password to access the menu.
02) Press the **ENTER** button to confirm the password.
03) Press the **UP/DOWN** buttons to scroll through the following options:



8.1. Upload

In this submenu you can export the custom programs from the master device to the connected slave devices.

01) Select UPLOAD and press the **ENTER** button to open the submenu.
02) Enter the password, pressing the buttons in the following order: **UP, DOWN, UP, DOWN**.
03) Press the **ENTER** button to confirm. During upload the display will show:

When the upload is finished, the display will show OK.

04) Press the **ENTER** button to confirm and exit the submenu.

8.2. Reset

In this submenu you can restore the default factory settings and reset the custom programs.

01) Select RESET and press the **ENTER** button to open the submenu.
02) Enter the password, pressing the buttons in the following order: **UP, DOWN, UP, DOWN**.
03) Press the **ENTER** button to confirm. During reset the display will show:

When the resetting is finished, the display will show OK.

04) Press the **ENTER** button to confirm and exit the submenu.

8.3. Dimmer

In this submenu you can adjust the dimmer speed.

01) Select DIMMER and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to choose one of the following options:
    - DIM 1, DIM 2, DIM 3, DIM 4 – non-linear dimmers, from fast to slow
    - OFF – linear dimmer
03) Press the **ENTER** button to confirm your choice.

8.4. DMX Error

In this submenu, you can determine the behavior of the device in case of a DMX failure.

01) Select DMX ERROR and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to toggle between the following 2 options:
    - SAVE: in case of a DMX signal failure the device will use the last properly received DMX signal ensuring uninterrupted performance
    - BLACK: in case of a DMX signal failure the device will black out the light output
03) Press the **ENTER** button to confirm your choice.

8.5. PWM Rate

In this submenu you can set the PWM (Pulse Width Modulation) frequency.

01) Select PWM Rate and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to choose the desired PWM frequency. The available options are 600 Hz, 1200 Hz, 2000 Hz, 4000 Hz, 6000 Hz, and 25000 Hz.

Note: The higher the PWM frequency, the lower the dimmer's grayscale

03) Press the **ENTER** button to confirm your choice.

8.6. Power CCT

In this submenu you can set the color temperature.

01) Select POWER CCT and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to choose the desired color temperature. The available options are: 2700 K, 3200 K, 4200 K and NORMAL.
03) Press the **ENTER** button to confirm your choice.

8.7. Fans

In this submenu you can adjust the speed of the cooling fans.

01) Select FANS and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to choose the desired fan speed. The available options are: SLOW, NORMAL, FAST and AUTO.
03) Press the **ENTER** button to confirm your choice.

8.8. Mode Settings

In this submenu you can set the device to perform as a master.

01) Select MODE SETTINGS and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to toggle between the following 2 options:
    - SELF: the device will operate as a stand-alone
    - MASTER: the device will operate as a master in Master/Slave mode
03) Press the **ENTER** button to confirm your choice.

8.9. XY Offset

In this submenu you can enable the color temperature calibration.

01) Select XY OFFSET and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to toggle between the following 2 options:
    - HIDE: color temperature calibration will be disabled
    - SHOW: color temperature calibration will be enabled. See **10. Correlated Color Temperature Control (CCT)** on page 21 for more information
03) Press the **ENTER** button to confirm your choice.

8.10. UC

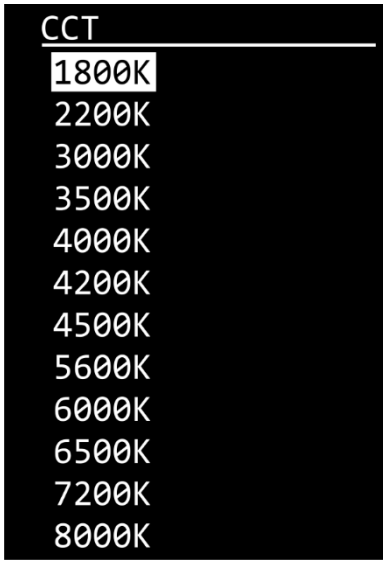
In this submenu you can calibrate the colors.

01) Select UC and press the **ENTER** button to open the submenu.
02) Press the **UP/DOWN** buttons to scroll through the static colors: RED, GREEN, BLUE, AMBER, LIME and CYAN.
03) Press the **ENTER** button to open the settings submenu.
04) Press the **UP/DOWN** buttons to adjust the color intensity. The adjustment range is between 0-255, from low to high intensity.
05) Press the **ENTER** button to set the value and to move to the next color.

9. Key (Display Lock)
In this menu you can activate the display lock.
01) Press the **UP/DOWN** buttons to toggle between ON and OFF.
- ON: display lock is on. The display turns off after 10 seconds of inactivity. To access the Main Menu, you will need to enter the password. The default password is pressing the **UP/DOWN** buttons in the following order: **UP, DOWN, UP, DOWN**.
- OFF: the Main Menu remains unlocked after the display turns off.

Note: Deactivating the display lock does not affect the submenu items which by default require a password.

10. Correlated Color Temperature Control (CCT)
In this menu you can calibrate the color temperature. This menu requires a **password**. The default password is pressing the **UP/DOWN** buttons in the following order: **UP, DOWN, UP, DOWN**.
01) Enter the password to access the menu.
02) Press the **ENTER** button to confirm the password.
03) Press the **UP/DOWN** buttons to scroll through the following options:



04) Press the **ENTER** button to open the submenu.
05) Press the **UP/DOWN** buttons to choose between X FINE and Y FINE.
06) Press the **ENTER** button to confirm the selection.
07) Press the **UP/DOWN** buttons to increase/decrease the value. The adjustment range is between -200 and +200.
08) Press the **ENTER** button to set the value.

11. Information
In this menu you can view the current software version and the RDM details of the device.
01) Press the **UP/DOWN** buttons to choose between VERSION and RDM.
02) Press the **ENTER** button to confirm the selection.

11.1. Version
If you have chosen VERSION, the display will show the current version of the installed firmware:

11.2. RDM
In this submenu you can view the RDM details of the device.
01) Press the **UP/DOWN** buttons to choose between UID and LABEL.
02) Press the **ENTER** button to confirm the selection.
- UID – the display shows the unique identification number of the device
- LABEL – the display shows the name of the device

DMX Channels

3 channels (Basic)

Channel 1 – Dimmer intensity

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 2 – Color presets

0-10	No function
11-20	L106
21-30	R05
31-40	L194
41-50	R54
51-60	L019
61-70	R08
71-80	R89
81-90	R86
91-100	L213
101-110	R377
111-120	R80
121-130	L202
131-140	L328
141-150	R3314
151-160	L101
161-170	L768
171-255	No function

Channel 3 – Color macros and CCT

0-10	No function
11-30	Red 100 % / Green Up / Blue 0 %
31-50	Red Down / Green 100 % / Blue 0 %
51-70	Red 0 % / Green 100 % / Blue Up
71-90	Red 0 % / Green Down / Blue 100 %
91-110	Red Up / Green 0 % / Blue 100 %
111-130	Red 100 % / Green 0 % / Blue Down
131-150	Red 100 % / Green Up / Blue Up
151-170	Red Down / Green Down / Blue 100 %
171-195	All LEDs at full output
196-199	1800 K
200-203	2200 K
204-207	2700 K
208-211	3000 K
212-215	3200 K
216-219	3500 K
220-223	4000 K
224-227	4200 K
228-231	4500 K
232-235	5600 K
236-239	6000 K
240-243	6500 K
244-247	7200 K
248-255	8000 K

6 channels (CLR)

Channel 1 – Red	
0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)
Channel 2 – Green	
0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)
Channel 3 – Blue	
0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)
Channel 4 – Amber	
0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)
Channel 5 – Lime	
0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)
Channel 6 – Cyan	
0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

7 channels (HSIC)

Channel 1 – Dimmer intensity	
0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)
Channel 2 – Hue ⚠ CH1 and CH4 must be open ⚠	
0-255	Gradual adjustment Hue, from 0-100 %
Channel 3 – Hue fine ⚠ CH1, CH2 and CH4 must be open ⚠	
0-255	Gradual adjustment Hue Fine, from 0-100 %
Channel 4 – Saturation ⚠ CH1 must be open ⚠	
0-255	Saturation adjustment, from 0-100 %
Channel 5 – CCT ⚠ CH1 must be open ⚠	
0-10	No function
11-28	1800 K
29-46	2200 K
47-64	2700 K
65-82	3000 K
83-100	3200 K
101-118	3500 K
119-136	4000 K
137-154	4200 K
155-172	4500 K
173-190	5600 K
191-208	6000 K
209-226	6500 K
227-244	7200 K
245-255	8000 K

Channel 6 – Strobe ⚠ CH1-CH4 must be open or CH5 must be set between 11-255 ⚠

0-9	No function
10-99	Strobe flash rate, from low to high frequency (0-20 Hz)
100-109	No function
110-179	Pulse strobe, from low to high rate
180-189	No function
190-255	Random strobe, from low to high rate

Channel 7 – Dimmer speed

0-9	No function
10-29	Linear dimmer
30-69	Non-linear dimmer 1 (fastest)
70-129	Non-linear dimmer 2
130-189	Non-linear dimmer 3
190-255	Non-linear dimmer 4 (slowest) – default

9 channels (SSP)

Channel 1 – Master Dimmer

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 2 – Red ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 3 – Green ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 4 – Blue ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 5 – Amber ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 6 – Lime ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 7 – Cyan ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 8 – Strobe ⚠ CH1-CH7 must be open ⚠

0-9	No function
10-99	Strobe flash rate, from low to high frequency (0-20 Hz)
100-109	No function
110-179	Pulse strobe, from low to high rate
180-189	No function
190-255	Random strobe, from low to high rate

Channel 9 – Dimmer speed

0-9	No function
10-29	Linear dimmer
30-69	Non-linear dimmer 1 (fastest)
70-129	Non-linear dimmer 2
130-189	Non-linear dimmer 3
190-255	Non-linear dimmer 4 (slowest) – default

13 channels (TOUR)

Channel 1 – Master Dimmer

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 2 – Red ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 3 – Green ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 4 – Blue ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 5 – Amber ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 6 – Lime ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 7 – Cyan ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 8 – Color presets ⚠ CH1 must be open ⚠

0-10	No function
11-20	L106
21-30	R05
31-40	L194
41-50	R54
51-60	L019
61-70	R08
71-80	R89
81-90	R86
91-100	L213
101-110	R377
111-120	R80
121-130	L202
131-140	L328
141-150	R3314
151-160	L101
161-170	L768
171-255	No function

Channel 9 – Color macros and CCT ⚠ CH1 must be open ⚠

0-10	No function
11-30	Red 100 % / Green Up / Blue 0 %
31-50	Red Down / Green 100 % / Blue 0 %
51-70	Red 0 % / Green 100 % / Blue Up
71-90	Red 0 % / Green Down / Blue 100 %
91-110	Red Up / Green 0 % / Blue 100 %
111-130	Red 100 % / Green 0 % / Blue Down
131-150	Red 100 % / Green Up / Blue Up
151-170	Red Down / Green Down / Blue 100 %
171-195	All LEDs at full output
196-199	1800 K
200-203	2200 K
204-207	2700 K
208-211	3000 K
212-215	3200 K
216-219	3500 K
220-223	4000 K
224-227	4200 K
228-231	4500 K
232-235	5600 K
236-239	6000 K
240-243	6500 K
244-247	7200 K
248-255	8000 K

Channel 10 – Built-in programs and custom programs

0-40	No function
41-50	Auto 1
51-60	Auto 2
61-70	Auto 3
71-80	Auto 4
81-90	Auto 5
91-100	Auto 6
101-110	Auto 7
111-120	Auto 8
121-130	Auto 9
131-140	Auto 10
141-150	Program 1
151-160	Program 2
161-170	Program 3
171-180	Program 4
181-190	Program 5
191-200	Program 6
201-210	Program 7
211-220	Program 8
221-230	Program 9
231-255	Program 10

Channel 11 – Auto speed ⚠ CH10 must be set between 41-140 ⚠

0-255	Speed adjustment, from slow to fast

Channel 12 – Strobe ⚠ CH1-CH7 must be open or CH8 must be set between 11-170 ⚠

0-9	No function
10-99	Strobe flash rate, from low to high frequency (0-20 Hz)
100-109	No function
110-179	Pulse strobe, from low to high rate
180-189	No function
190-255	Random strobe, from low to high rate

Channel 13 – Dimmer speed

0-9	No function
10-29	Linear dimmer
30-69	Non-linear dimmer 1 (fastest)
70-129	Non-linear dimmer 2
130-189	Non-linear dimmer 3
190-255	Non-linear dimmer 4 (slowest) – default

20 channels (TR16)

Channel 1 – Master Dimmer

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 2 – Dimmer Fine

0-255	Fine adjustment of the brightness, from low to high intensity (0-100 %)

Channel 3 – Red ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 4 – Red Fine ⚠ CH1, CH2 and CH3 must be open ⚠

0-255	Fine adjustment of the brightness, from low to high intensity (0-100 %)

Channel 5 – Green ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 6 – Green Fine ⚠ CH1, CH2 and CH5 must be open ⚠

0-255	Fine adjustment of the brightness, from low to high intensity (0-100 %)

Channel 7 – Blue ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 8 – Blue Fine ⚠ CH1, CH2 and CH7 must be open ⚠

0-255	Fine adjustment of the brightness, from low to high intensity (0-100 %)

Channel 9 – Amber ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 10 – Amber Fine ⚠ CH1, CH2 and CH9 must be open⚠

0-255	Fine adjustment of the brightness, from low to high intensity (0-100 %)

Channel 11 – Lime ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 12 – Lime Fine ⚠ CH1, CH2 and CH11 must be open ⚠

0-255	Fine adjustment of the brightness, from low to high intensity (0-100 %)

Channel 13 – Cyan ⚠ CH1 must be open ⚠

0-255	Gradual adjustment of the brightness, from low to high intensity (0-100 %)

Channel 14 – Cyan Fine ⚠ CH1, CH2 and CH13 must be open ⚠

0-255	Fine adjustment of the brightness, from low to high intensity (0-100 %)

Channel 15 – Color presets ⚠ CH1 or CH2 must be open ⚠

0-10	No function
11-20	L106
21-30	R05
31-40	L194
41-50	R54
51-60	L019
61-70	R08
71-80	R89
81-90	R86
91-100	L213
101-110	R377
111-120	R80
121-130	L202
131-140	L328
141-150	R3314
151-160	L101
161-170	L768
171-255	No function

Channel 16 – Color macros and CCT ⚠ CH1 or CH2 must be open ⚠

0-10	No function
11-30	Red 100 % / Green Up / Blue 0 %
31-50	Red Down / Green 100 % / Blue 0 %
51-70	Red 0 % / Green 100 % / Blue Up
71-90	Red 0 % / Green Down / Blue 100 %
91-110	Red Up / Green 0 % / Blue 100 %
111-130	Red 100 % / Green 0 % / Blue Down
131-150	Red 100 % / Green Up / Blue Up
151-170	Red Down / Green Down / Blue 100 %
171-195	All LEDs at full output
196-199	1800 K
200-203	2200 K
204-207	2700 K
208-211	3000 K
212-215	3200 K
216-219	3500 K
220-223	4000 K
224-227	4200 K
228-231	4500 K
232-235	5600 K
236-239	6000 K
240-243	6500 K
244-247	7200 K
248-255	8000 K

Channel 17 – Built-in programs and custom programs	
0-40	No function
41-50	Auto 1
51-60	Auto 2
61-70	Auto 3
71-80	Auto 4
81-90	Auto 5
91-100	Auto 6
101-110	Auto 7
111-120	Auto 8
121-130	Auto 9
131-140	Auto 10
141-150	Program 1
151-160	Program 2
161-170	Program 3
171-180	Program 4
181-190	Program 5
191-200	Program 6
201-210	Program 7
211-220	Program 8
221-230	Program 9
231-255	Program 10

Channel 18 – Auto speed ⚠ CH17 must be set between 41-140 ⚠	
0-255	Speed adjustment, from slow to fast

Channel 19 – Strobe ⚠ CH1-CH15 must be open or CH15 must be set between 11-170 ⚠	
0-9	No function
10-99	Strobe flash rate, from low to high frequency (0-20 Hz)
100-109	No function
110-179	Pulse strobe, from low to high rate
180-189	No function
190-255	Random strobe, from low to high rate

Channel 20 – Dimmer speed	
0-9	No function
10-29	Linear dimmer
30-69	Non-linear dimmer 1 (fastest)
70-129	Non-linear dimmer 2
130-189	Non-linear dimmer 3
190-255	Non-linear dimmer 4 (slowest) – default

Maintenance

The operator has to make sure that safety-related and machine-technical installations are to be inspected by an expert after every year in the course of an acceptance test.
The operator has to make sure that safety-related and machine-technical installations are to be inspected by a skilled person once a year.

The following points have to be considered during the inspection:
01) All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
02) There may not be any deformations on housings, fixations and installation spots.
03) Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
04) The electric power supply cables must not show any damages or material fatigue.

The Spectral Revo 6 IP65 requires almost no maintenance. However, you should keep the unit clean. Otherwise, the fixture's light output will be significantly reduced. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Wipe lens clean with glass cleaner and a soft cloth. Do not use alcohol or solvents.
The front lens will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light-output very quickly.
Keep connections clean. Disconnect electric power, and then wipe the DMX connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Troubleshooting

This troubleshooting guide is meant to help solve simple problems.
If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

No Light

If the light effect does not operate properly, refer servicing to a technician.
Suspect two potential problem areas as: the power supply and the LEDs.
01) Power supply. Check that the unit is plugged into an appropriate power supply.
02) The LEDs. Return the Spectral to your Showtec dealer.
03) If both of the above appear to be O.K., plug the unit in again.
04) If you are unable to determine the cause of the problem, do not open the Spectral, as this may damage the unit and the warranty will become void.
05) Return the device to your Showtec dealer.

No Response to DMX

Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.
01) Check the DMX settings. Make sure that DMX addresses are correct.
02) Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
03) Determine whether the controller or light effect is at fault. Does the controller operate properly with other DMX products? If not, take the controller in for repair. If so, take the DMX cable and the light effect to a qualified technician.

Problem	Probable cause(s)	Solution
One or more fixtures do not function at all	No power to the fixture	• Check if power is switched on and cables are plugged in
	Internal fuse blown	• Return the device to your local Showtec dealer
Fixtures reset correctly, but all respond erratically or not at all to the controller	The controller is not connected.	• Connect controller
	5-pin XLR OUT of the controller does not match XLR IN of the first fixture on the link (i.e. signal is reversed)	• Install a phase reversing cable between the controller and the first fixture on the link
Fixtures reset correctly, but some respond erratically or not at all to the controller	Poor data quality	• Check data quality. If much lower than 100 percent, the problem may be a bad data link connection, poor quality or broken cables, missing termination plug, or a defective fixture disturbing the link
	Bad data link connection	• Inspect connections and cables. Correct poor connections. Repair or replace damaged cables
	Data link not terminated with 120 Ohm termination plug	• Insert termination plug in the DMX OUT connector of the last fixture on the link
	Incorrect addressing of the fixtures	• Check address settings
	One of the fixtures is defective and disturbs data transmission on the link	• Bypass one fixture at a time until normal operation is restored: unplug both connectors and connect them directly together • Have the defective fixture serviced by a qualified technician
	5-pin XLR OUT on the fixtures does not match (pins 2 and 3 reversed)	• Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture that behaves erratically
No light or LEDs cuts out intermittently	Fixture is too hot	• Allow the fixture to cool down • Make sure air vents and the front lens are not blocked • Turn up the air conditioning
	LEDs damaged	• Disconnect the fixture and return it to your dealer
	The power supply settings do not match local AC voltage and frequency	• Disconnect fixture. Check settings and correct if necessary

Product Specifications

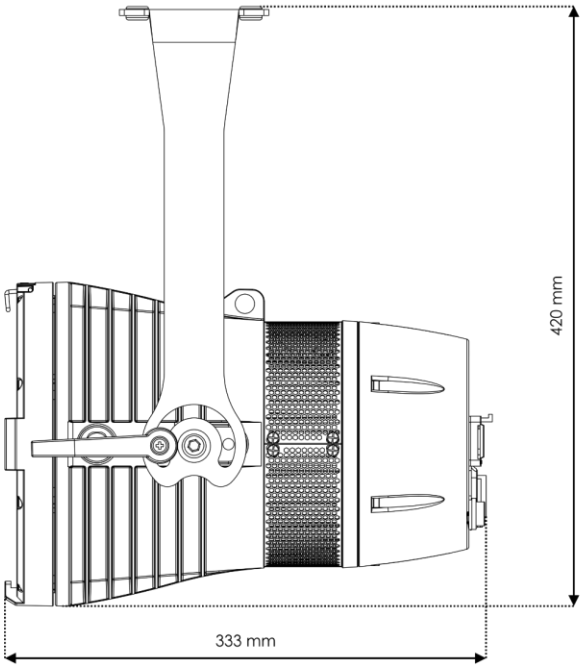
Model:	Showtec Spectral Revo 6 IP65
Input voltage:	100-240 V AC, 50/60 Hz
Power consumption:	145 W max
DMX linking:	30 pcs
Dimensions:	425 x 320 x 219 mm (L x W x H) (including bracket)
Weight:	6,1 kg
Operating and Programming:	
Signal pin OUT:	Pin 1 (earth), pin 2 (-), pin 3 (+), pin 4 (N/C), pin 5 (N/C)
DMX personalities:	Basic (3 CH), CLR (6 CH), HSIC (7 CH), SSP (9 CH), Tour (13 CH), TR16 (20 CH)
Signal input:	5-pin DMX IN
Signal output:	5-pin DMX OUT
Electro-mechanical properties:	
Light source:	1 x 125 W custom Osram RGBALC LED Array
Maximum flux:	3051 lm
Peak intensity:	28987 cd
Beam angle:	17°
Dimmer:	0-100 %
Strobe:	0-20 Hz
Housing:	Die-cast aluminum, black
Control protocol:	DMX-512 and RDM
On-board:	OLED display
Control:	Static Colors, Auto, Master/Slave, DMX-512
Connections:	IP-65 rated power connectors True1 IN/OUT IP-65 rated 5-pin DMX IN/OUT connectors
Cooling:	Forced convection
IP rating:	IP65
Ambient temperature t_a:	-20 °C to 40 °C
Max. housing temperature t_B:	80 °C
Minimum distance:	
Minimum distance from flammable surfaces:	0,8 m
Minimum distance to lighted object:	1 m

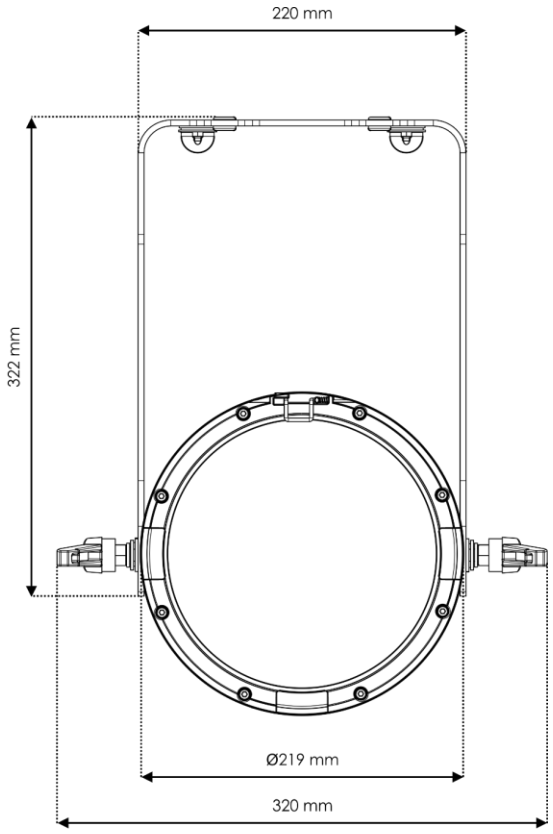
Design and product specifications are subject to change without prior notice.

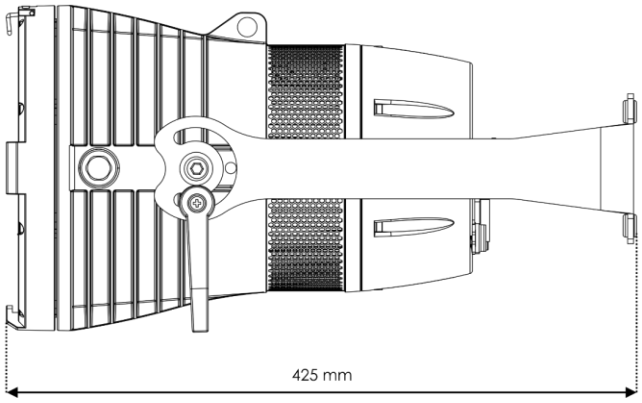
CE

Website: www.Showtec.info
Email: service@highlite.com

Dimensions







Notes