



Horizon 8

ORDERCODE 43536



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SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from Showtec.
The Showtec Horizon 8 brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated DMX show, this product provides the effect you need.

You can rely on Showtec, for more excellent lighting products.
We design and manufacture professional light equipment for the entertainment industry.
New products are being launched regularly. We work hard to keep you, our customer, satisfied.
For more information: iwant@showtec.info

You can get some of the best quality, best priced products on the market from Showtec.
So next time, turn to Showtec for more great lighting equipment.
Always get the best -- with Showtec !

Thank you!



Showtec Horizon 8™ Product Guide

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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 be returned in the original factory box and packing.

Your shipment includes:

- Horizon 8
- Quick-lock brackets
- Safety cable (1m)
- 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. It is estimated that a viable lifespan of 40,000 to 50,000 hours will be achieved under normal operational conditions. If improving on this lifespan expectancy is of a higher priority, place care in providing for lower operational temperatures. This may include climatic-environmental and the reduction of overall projection intensity.

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 your 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 written 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 look directly into the light source.
- Never leave any cables lying around.
- Never use the device during thunderstorms, unplug the device immediately.
- Never leave various parts of the packaging (plastic bags, polystyrene foam, nails, etc.) within children's reach, as they are potential sources of danger.
- Do not insert objects into air vents.
- Do not open the device and do not modify the device.
- Do not connect this device to a dimmerpack.
- Do not shake the device. Avoid brute force when installing or operating the device.
- Do not switch the device on and off in short intervals, as this would reduce the system's life.
- Avoid contact with water or other liquids.
- Only operate the device after having familiarized with its functions.
- Avoid flames and do not put close to flammable liquids or gases.
- Always allow free air space of at least 50 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 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.
- Make sure that no side forces can impact on the truss system.
- The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to deadly electrical shocks.
- If the external cable is damaged, it has to be replaced by a qualified technician.
- If the lens is obviously damaged, it has to be replaced. So that its functions are not impaired, due to cracks or deep scratches.
- If the device is 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 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 device must be installed out of the reach of children. Never leave the unit running unattended.
- For replacement use fuses of same type and rating only.
- The user is responsible for correct positioning and operating of the device. 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 light source.
(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 more than 0.5 meter.
- The maximum ambient temperature $t_a = 45^\circ\text{C}$ must never be exceeded.
- The relative humidity must not exceed 50 % with an ambient temperature of 45°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!

Improper installation can cause serious damage to people and property !

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 fixture is lowered from the ceiling or high joists, professional trussing systems have to be used.
- Use a clamp to mount the fixture, with the mounting-bracket, to the trussing system.
- The fixture 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 fixture, always make sure, that the area below the installation place is blocked and staying in the area is forbidden.

The Horizon 8 can be placed on a flat stage floor or mounted to any kind of truss by a clamp.

Mounting a quicklock to the underside of the Horizon 8




Improper installation can cause serious damage to people and property !

Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
	YELLOW/GREEN	GREEN	GREEN	EARTH

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



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.nl 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:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings 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 notify 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 otherwise agreed in writing.

Complaints against us must be made known in writing or 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 of which the obligation is resulting.

Description of the device

The Horizon 8 is a wireless LED Horizon 8 from Showtec.

Features

- RGBWA colour control
- Adjustable heads
- A-symmetric reflectors
- Easy adjustable
- LED Qty.: 32 x Red, 32 x Green, 32 x Blue, 16 x White, 16 x Amber
- Refresh rate: 1200Hz
- Drive Current: 700mA
- Colour Range: 16.7 million additive RGB colours with full saturation control
- Input Voltage: 100~240 VAC 50/60Hz
- Max. Power: 298W
- powercon in- and outputs
- Max. Flux: 7200lm
- Peak Intensity: 8400cd
- Optical System Dimmer: 0-100%
- Strobe: 0-20Hz
- Beam Angle: 45 x 60°
- On-board: Display for Auto, Static colour and Custom control
- Control Protocol: DMX512
- Control Personality: TOUR, TR16, ARC1, AR1.D, ARC.2, ARC.3, AR3.D, AR3.S, HSV, PIX1, PIX3
- Dimensions: 622 x 310 x 299 mm
- Weight: 15 kg
- Housing: Black anodized steel/ Flame-retardant plastic
- Colour: Black
- Fixture Connection: DMX in/out, power in
- Cooling: Convection
- Environment: Dry location IP20 (IP44 with optional raincover)
- Equipped with 4 quick locks to ensure quick rigging
- Optional raincoat available
- Operation Temperature: -20°C ~ 45°C

Note: Knowledge of DMX is required to fully utilize this unit.



Fig. 1

DMX Channel Summary

TOUR	Channel	Description
	1	Dimmer
	2	Red
	3	Green
	4	Blue
	5	White
	6	Amber
	7	Color Macro + white
	8	Strobe
	9	Auto & Custom Programs
	10	Auto Speed Adjustment
	11	Dimmer Speed

TR16	Channel	Description
	1	Dimmer
	2	Dimmer fine
	3	Red
	4	Red fine
	5	Green
	6	Green fine
	7	Blue
	8	Blue fine
	9	White
	10	White fine
	11	Amber
	12	Amber fine
	13	Color Macro
	14	Strobe
	15	Auto & Custom Programs
	16	Auto Speed Adjustment
	17	Dimmer Speed

ARC1	Channel	Description
	1	Red
	2	Green
	3	Blue

AR1.D	Channel	Description
	1	Dimmer
	2	Red
	3	Green
	4	Blue

ARC2	Channel	Description
	1	Red
	2	Green
	3	Blue
	4	White

ARC3	Channel	Description
	1	Red
	2	Green
	3	Blue
	4	White
	5	Amber

AR3.D	Channel	Description
	1	Dimmer
	2	Red
	3	Green
	4	Blue
	5	White
	6	Amber

AR3.S	Channel	Description
	1	Dimmer
	2	Red
	3	Green
	4	Blue
	5	White
	6	Amber
	7	Clas

HSV	Channel	Description
	1	Hue
	2	Saturation
	3	Value

PIX1	Channel	Description
	1	P1 Red
	2	P1 Green
	3	P1 Blue
	4	P2 Red
	5	P2 Green
	6	P2 Blue

PIX3	Channel	Description
	1	P1 Red
	2	P1 Green
	3	P1 Blue
	4	P1 White
	5	P1 Amber
	6	P2 Red
	7	P2 Green
	8	P2 Blue
	9	P2 White
	10	P2 Amber

Overview



Fig. 2

- 1) **Filter frame quick lock**
- 2) **DMX signal connector (IN) 3-pin**
- 3) **DMX signal connector (IN) 5-pin**
- 4) **Powercon input**
- 5) **Fuse**
Replace with a fuse of the same rating only (T5A 250V)
- 6) **Control panel**
See page 14.
- 7) **DMX signal connector (OUT) 3-pin**
- 8) **DMX signal connector (OUT) 3-pin**
- 9) **Powercon output**
- 10) **Head adjustment fixing screw**

Installation

Remove all packing materials from the Horizon 8. Check that 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.

Set Up and Operation

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 115V specification product on 230V power, or vice versa.

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 on 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.

The Horizon 8 uses up to 17 channels.

Important: Fixtures on a serial data link must be daisy chained in one 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 LED Pars on a DMX data link: 30 fixtures

@ 230V: 12 units may be connected in series

@115V: 6 units may be connected in series

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 Certified DMX Data Cables

- DAP Audio Basic microphone cable for allround use. bal. XLR/M 3 p. > XLR/F 3 p.
Ordercode: FL01150 (1,5m.), FL013 (3m.), FL016 (6m.), FL0110 (10m.), FL0115 (15m.), FL0120 (20m.).
- DAP Audio cable for the demanding user with exceptional audio-qualities and connector made by Neutrik®. **Ordercode:** FL71150 (1,5m.), FL713 (3m.), FL716 (6m.), FL7110 (10m.).



Control Modes

- There are 4 modes:
- Static color
 - Select built-in programs
 - Master/Slave
 - DMX512

One Horizon 8 (Static Color/Built-in Programs)

When the Horizon 8 is not connected by a DMX-cable and Wireless DMX is switched off, it functions as a stand-alone device. See page 17/18 for more information about the built-in programs.

Multiple Horizon 8 (Master/Slave control)

Use a 3-p XLR cable to connect the Horizon 8.
The pins:



1. Earth
2. Signal -
3. Signal +

1. Link the units as shown in (Fig. 3), connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units. You can use the same functions on the master device as described on page 17 (Built-in Programs). This means on the master device you can set your desired operation Mode and all slave devices will react the same as the master device.

Multiple Horizon 8s (Master/Slave control)



Fig. 3

Multiple Horizon 8 (DMX Control)

Use a 3-p XLR cable to connect the Horizon 8(s) and other devices.

Occupation of the XLR-connection:

DMX-OUTPUT XLR mounting-socket:



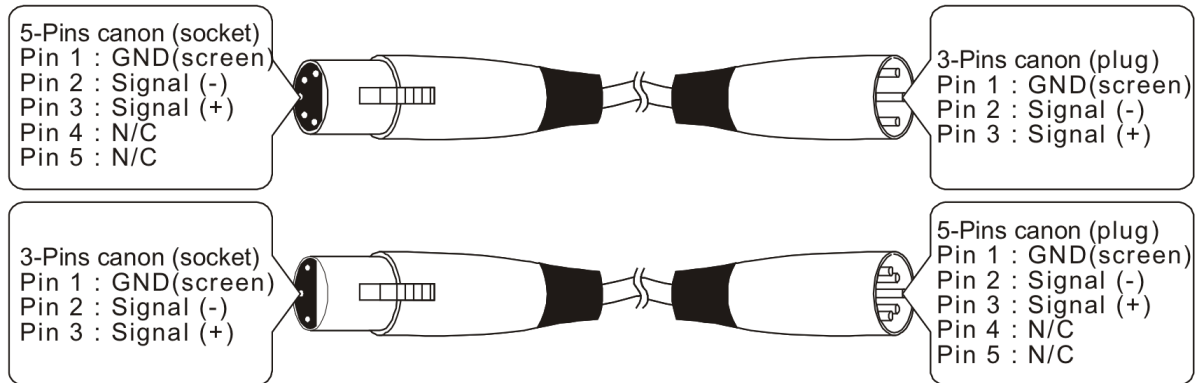
- 1 - Ground
- 2 - Signal (-)
- 3 - Signal (+)

DMX-input XLR mounting-plug



- 1 - Ground
- 2 - Signal (-)
- 3 - Signal (+)

The transformation of the controller line of 3 pins and 5 pins (plug and socket)



1. Link the units as shown in (figure 4); connect a DMX signal cable from the first unit's DMX "out" socket to the second unit's "in" socket. Repeat this process to link the second, third, and fourth units.
2. Supply electric power: Plug electric mains power cords into each unit's IEC 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.

Multiple Horizon 8 DMX Set Up with individual DMX addressing



Fig. 4

Note : Link all cables before connecting electric power

The Horizon 8 has a total of 11 DMX channel configurations, referred to as **Personalities**. The 11 personalities are [TOUR, TR16, ARC.1, AR1.D, ARC.2, ARTC.3, AR3.D, AR3.S, HSV, PIX1, PIX 3]. Each of the different personalities can be accessed from the control panel.

Control Panel

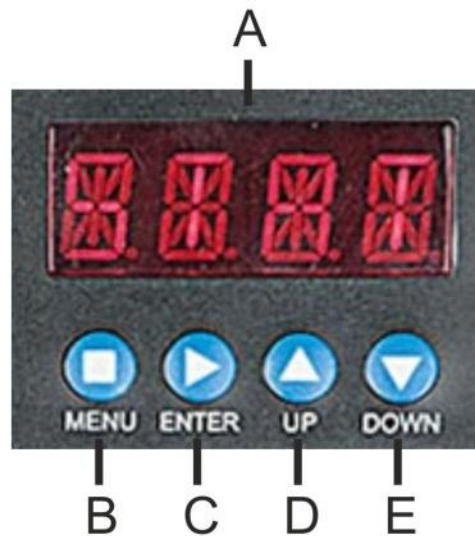


Fig. 5

- A. Display
- B. Menu Button
- C. Enter Button
- D. Up Button
- E. Down Button

DMX Control Mode

The fixtures are individually addressed **D001** ^{UP/DOWN} **D512** on a data-link and connected to the controller. When a DMX signal is present, a “dot” behind the last digit will blink. The fixtures respond to the DMX signal from the controller.

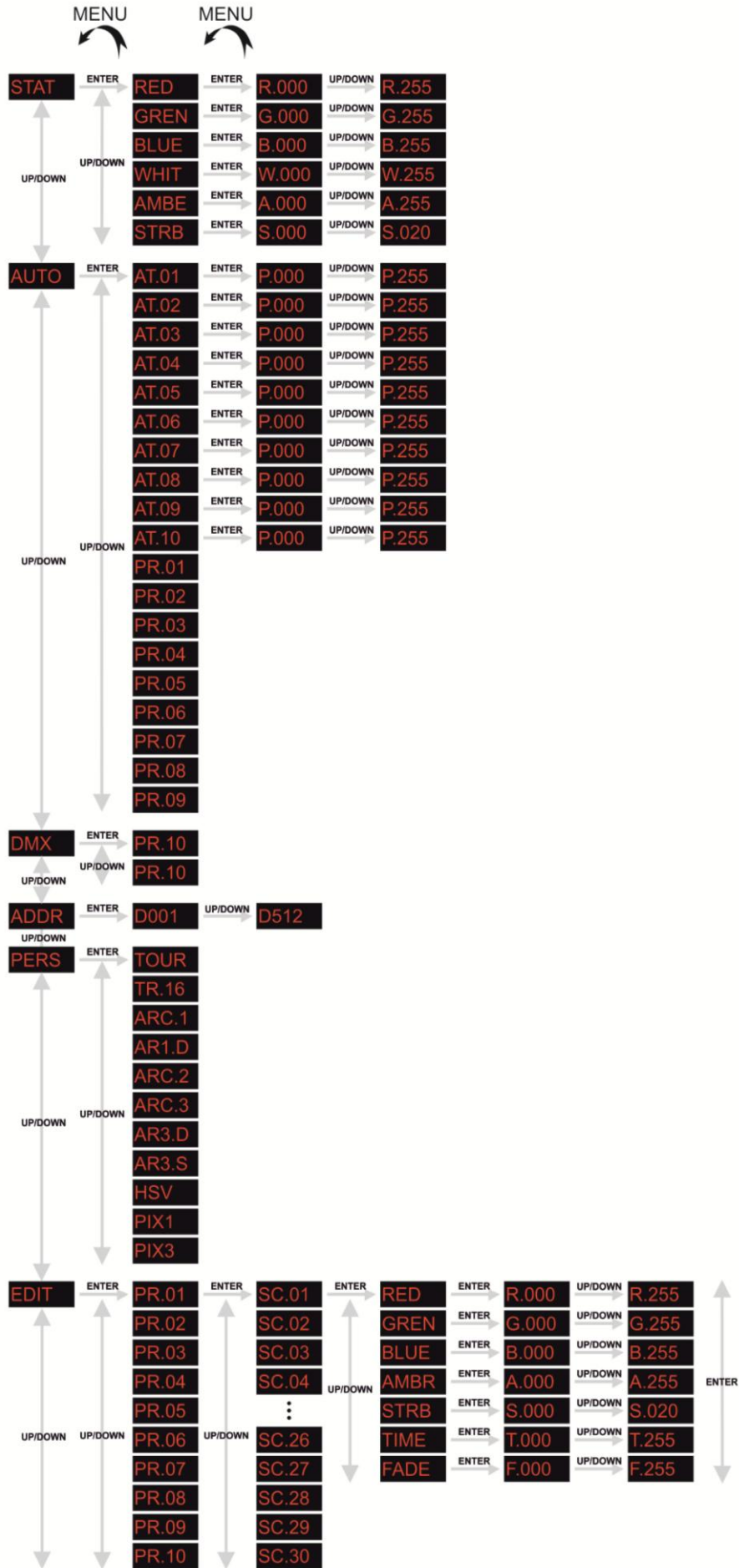
DMX Addressing

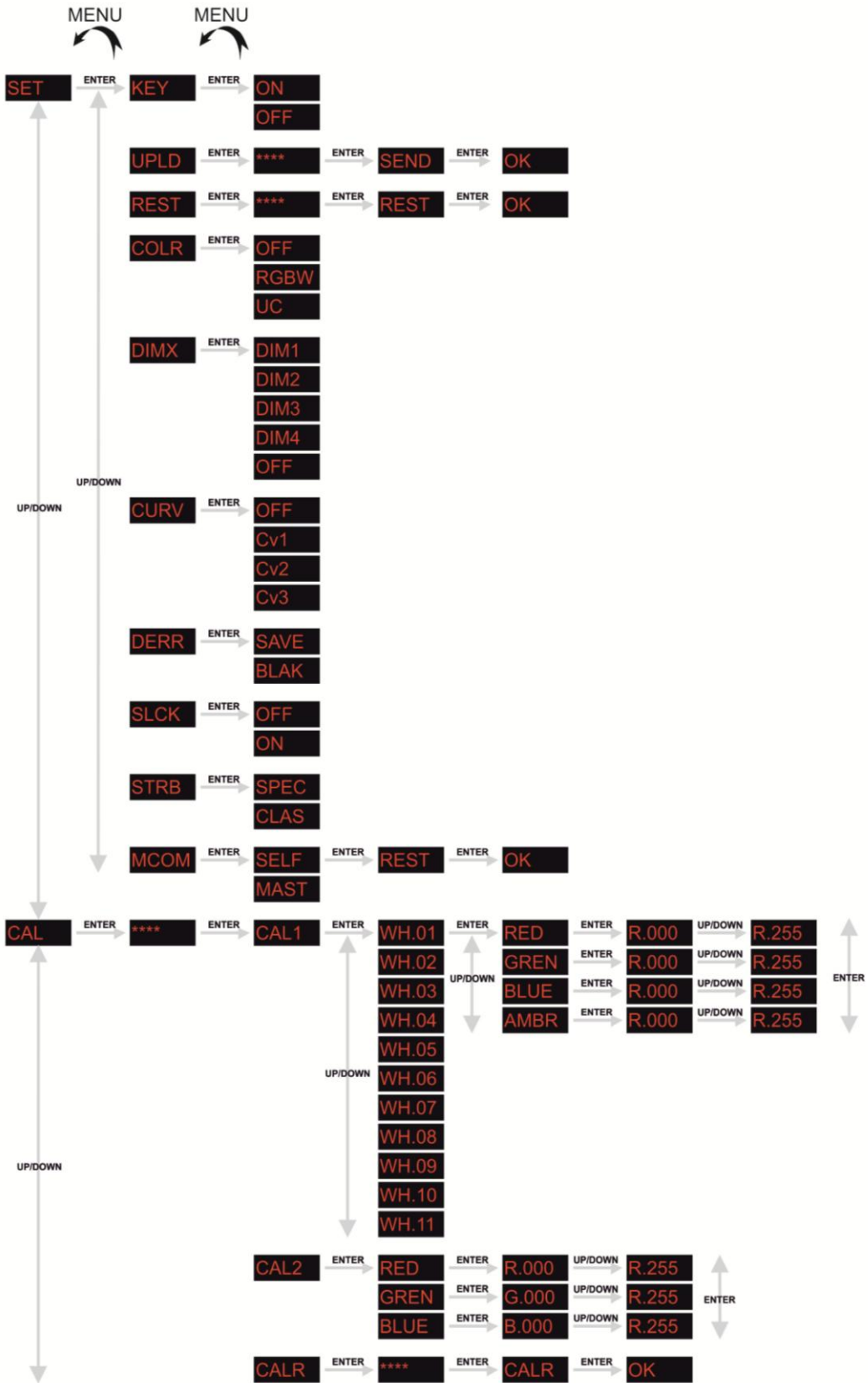
The control panel on the backside allows you to assign the DMX fixture address, which is the first channel from which the Horizon 8 will respond to the controller. Please note when you use the controller, the unit has up to **17** channels (in TR-16 mode). I.E. When using multiple Horizon 8 in **TR-16 mode**, make sure you set the DMX addresses right. Therefore, the DMX address of the first Horizon 8 should be **1(001)**; the DMX address of the second Horizon 8 should be **1+17=18**; the DMX address of the third Horizon 8 should be **18+17=35**, etc. Please, be sure that you don't have any overlapping channels in order to control each Horizon 8 correctly. If two or more Horizon 8's are addressed similarly, they will work similarly. **Controlling:** After having addressed all Horizon 8's, you may now start operating these via your lighting controller. **Note:** After switching on, the Horizon 8 will automatically detect whether DMX 512 data is received or not. If there is no data received at the DMX-input, the “dot” behind the last digit will light continuously. The problem may be:

- The XLR cable from the controller is not connected with the input of the Horizon 8.
- The controller is switched off or defective, the cable or connector is defective, or the signal wires are swapped in the input connector.

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

Menu overview





Main Menu Options

Press the up (C)/down (D) buttons to navigate through the 8 menus:

STAT
AUTO
RUN
ADDR
PERS
EDIT
SET
CAL

Creating a static color



1. Select the **STAT** menu and press the enter (C) button.
2. Use the up (D)/down (E) buttons you to change the static colors (Red, Green, Blue, White, Amber or the strobe speed (0-20Hz).
3. Press the menu (B) button to go 1 step back.

You can combine RED, GREEN, BLUE WHITE and AMBER to create an infinite range of colors (0-255).

Red

Set the value of the red LEDs (0-255).

Green

Set the value of the green LEDs (0-255).

Blue

Set the value of the blue LEDs (0-255).

White

Set the value of the white LEDs (0-255).

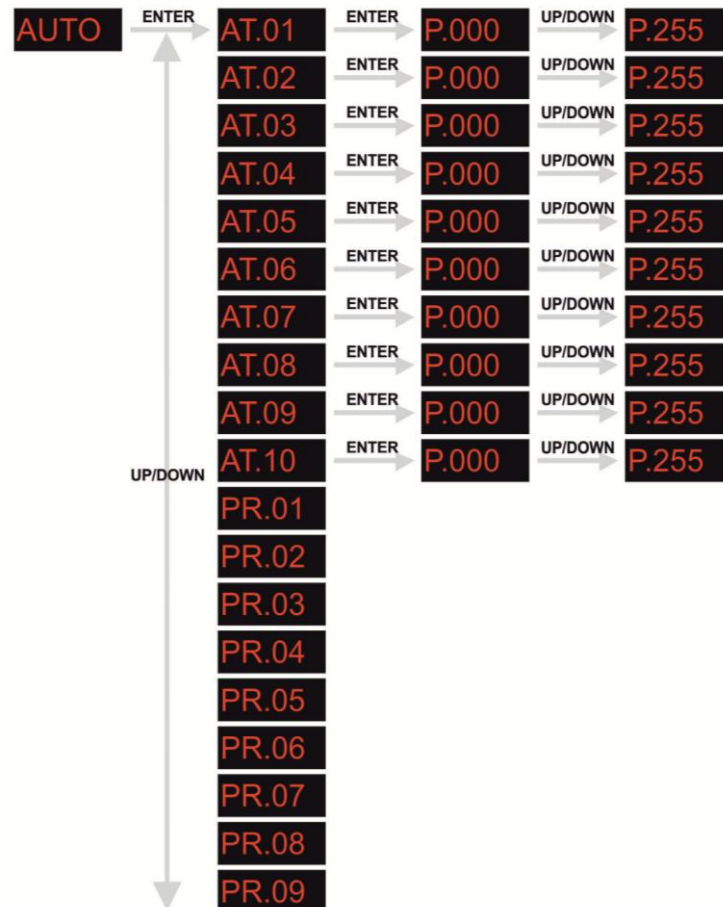
Amber

Set the value of the amber LEDs (0-255).

Strobe

Set the value of the flash (0-20Hz).

Activating an Auto Program



1. Select the **AUTO** menu and press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select an auto program (AT.01-10) or a custom program (PR.01-10).
3. Press enter (C) after selecting the desired auto program. You can set up the auto speed of the 10 built-in programs between 000-255. You can also edit 10 custom programs.

Run Mode



1. Select the **RUN** menu and press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select the desired working mode:
 - DMX mode is used when working with a DMX512 controller to control the Horizon 8 or use the Horizon 8 as master during a Master –Slave operation.
 - SLAVE mode is for using the device as a slave during a Master-Slave operation.

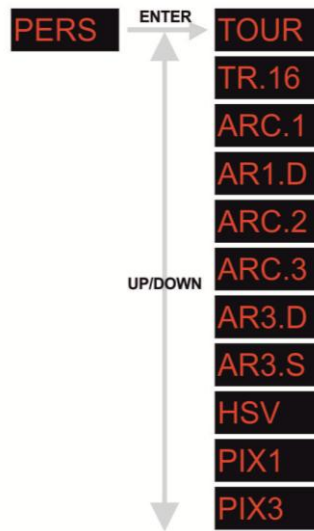
⚠ When the fixtures are in Auto program operation, the RUN MODE does not work. ⚠

DMX 512 Address



1. Select the **ADDR** menu and press the enter (C) button.
2. Use the up (D)/ down (E) buttons to set the DMX address. You can choose your DMX address between 001-512.

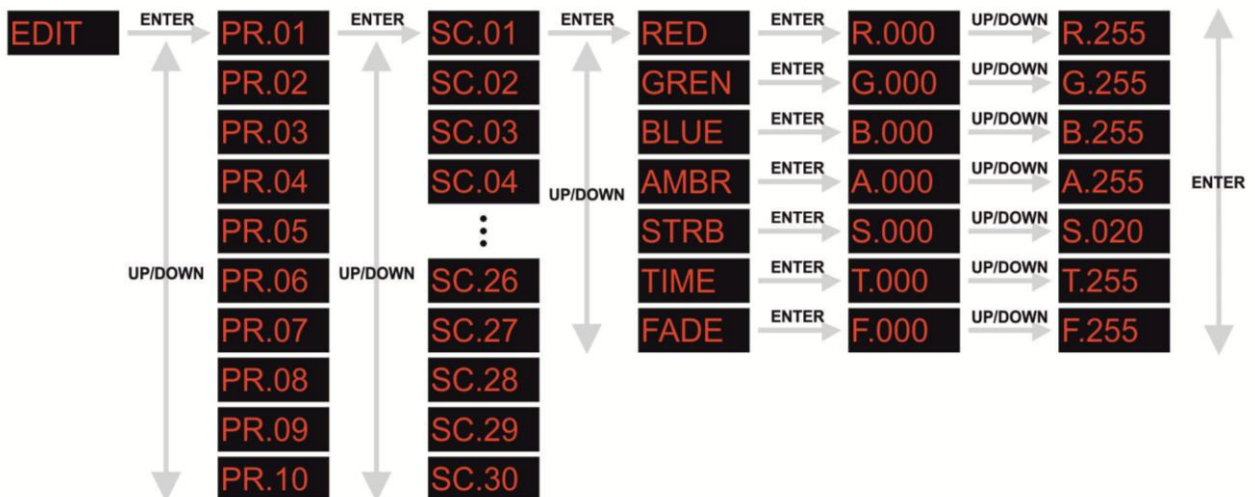
Personality



1. Select the **PERS** menu and press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select a DMX mode:

TOUR:	11 channels
TR16:	17 channels
ARC.1:	3 channels
AR1.D:	4 channels
ARC.2:	4 channels
ARC3:	5 channels
AR3.D:	6 channels
AR3.S:	7 channels
HSV:	3 channels
PIX1	6 channels
PIX3	10 channels

Edit Custom



1. Select the **EDIT** menu and press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select a custom program, an effect key or a color key for editing.
 - Each custom program has 30 steps, which can be edited.
 - Each step allows the creation of a scene using RED, GREEN, BLUE, AMBER, STROBE, TIMER & FADE.
3. Press the enter (C) button to edit a custom program.
4. Use the enter (C)/ up (D)/ down (E) buttons to edit each step.

Changing the Settings



1. Select the **SET** menu and press the enter (C) button.
2. Enter the password.

⚠ Password: up(D) -> down (E) -> up (D) -> down (E). ⚠

3. Press the enter (C) button.

Setting up the keylock

1. Use the up (D)/ down (E) buttons to select the **key** menu. Press the enter (C) button.
2. Use the up (D)/ down (E) buttons to switch the Keylock on or off. If no button is pressed for 1 minute, the system shuts down and can only be accessed by entering the password.

Releasing the Keylock

1. Enter the password by pressing up (D) -> down (E) -> up (D) -> down (E). Press the enter (C) button.
2. Enter the **key** menu as described in step 1-3 and switch off the Keylock as described in step 4. Press the menu (B) button.

Uploading a program from the current master device

1. Use the up (D)/ down (E) buttons to select the **UPLD** menu in the master device.
2. Enter the password.

⚠ Password: up(D) -> down (E) -> up (D) -> down (E). ⚠

3. Press the enter (C) button.
4. Press the enter (C) button to start uploading. While uploading, the display will show **SEND**.
5. When the system is finished uploading, the display will show **OK**.

Restoring to factory settings

1. Use the up (D)/ down (E) buttons to select the **REST** menu.
2. Enter the password.

⚠ Password: up(D) -> down (E) -> up (D) -> down (E). ⚠

3. Press the enter (C) button to restore the device to the factory settings.
4. When the system is finished the display will show **OK**.

Colour setting

1. Use the up (D)/ down (E) buttons to select the **COLR** menu. Press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select **OFF, RGBW, UC**:
 - OFF:** On RGB = 255,255,255, the RGB values are not adjusted and the output is most powerful.
 - RGBW:** On RGB = 255, 255, 255. The color is displayed as you have calibrated the specific color in menu **CAL2->RGB**.
 - UC:** RGB output is adjusted to a standard preset universal color. This way, different versions of Horizon 8's are color balanced to match each other.

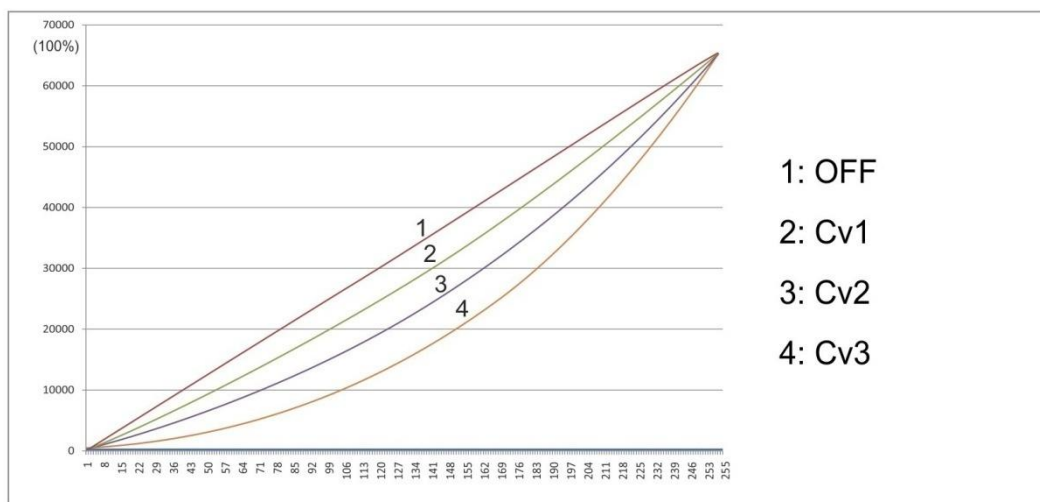
DIMX mode setting

1. Use the up (D)/ down (E) buttons to select the **DIMX** menu. Press the **enter (C)** button.
2. Use the up (D)/ down (E) buttons to select **DIM1 - DIM4** or **OFF**:

When **DIMX** is set to **OFF**, the **RGBW** dimmer and the **master** dimmer are linear. **DIM1-4** are speed modes of the non linear dimmer. **DIM1** is the fastest and **DIM4** is the slowest. The **DIMX** setting has no effect in **TOUR** mode.

CURV mode setting

1. Use the up (D)/ down (E) buttons to select the **CURV** menu. Press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select **CV1 - CV3** or **OFF**. See the curve chart below to understand the dimmer curves.



DMX error setting

1. Use the up (D)/ down (E) buttons to select the **DERR** menu. Press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select **SAVE** or **BLAK**. Select **SAVE** if you want to save the last DMX data in case of a DMX error. Select **BLAK** if you want to blackout the fixture in case of a DMX error

Lock the SET menu

1. Use the up (D)/ down (E) buttons to select the **SLCK** menu. Press the enter (C) button.
2. Use the up (D)/ down (E) buttons to switch the **SLCK** on or off. Press the enter (C) button. After you leave the **SET** menu, you can only enter the set menu again if you enter the password.
3. Enter the password.

⚠ Password: up(D) -> down (E) -> up (D) -> down (E). ⚠

4. Press the enter (C) button.

Strobe personality setting

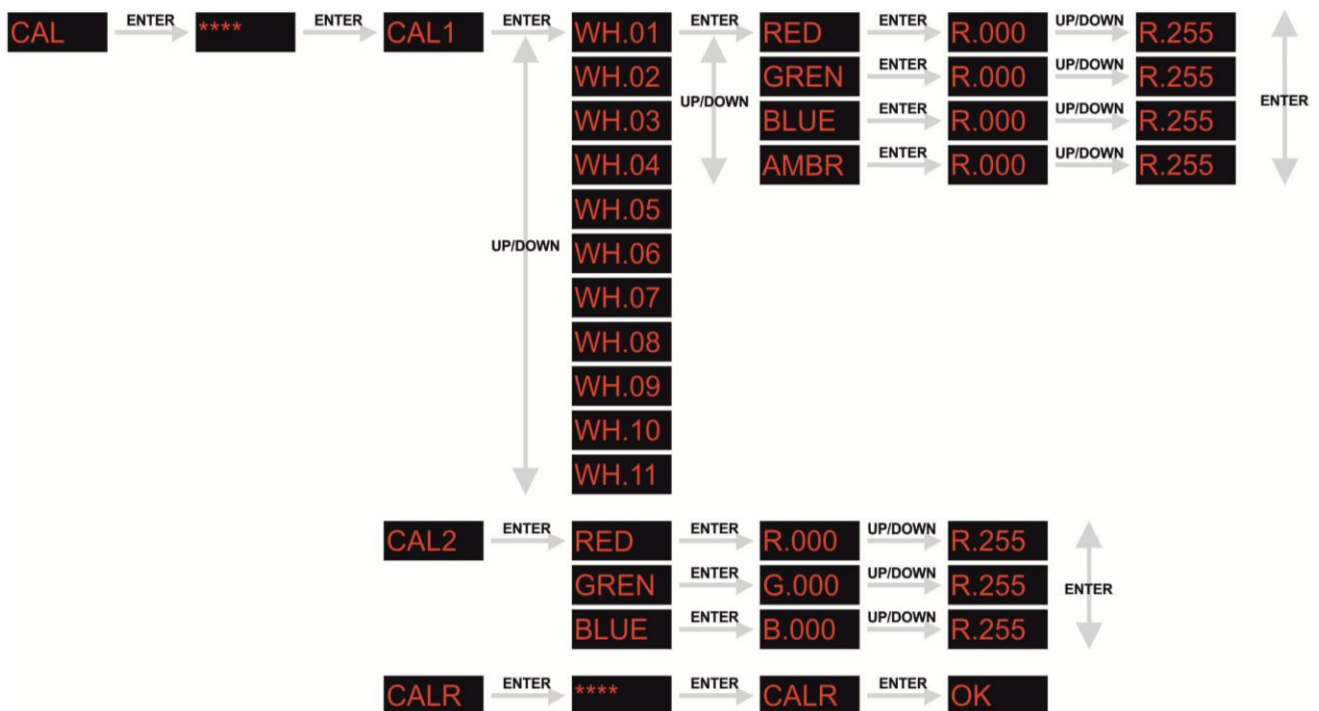
1. Use the up (D)/ down (E) buttons to select the **STRB** menu. Press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select either **CLAS** strobe or **SPEC** strobe. **STRB** settings are only valid in the DMX personalities **TOUR**, **AR3.S** and **Tr16**.

MCOM setting

1. Use the up (D)/ down (E) buttons to select the **MCOM** menu. Press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select either **MAST** strobe or **SELF** strobe.
SELF: The Horizon 8 will not send any DMX data to devices connected to the DMX OUT (7,8) connectors while in standalone mode.

MAST: The Horizon 8 will send DMX data to devices connected to the DMX OUT (7,8) connectors while in standalone mode.

White Settings



1. Select the **CAL** menu and press the enter (C) button.
2. Enter the password.

⚠ Password: up(D) -> down (E) -> up (D) -> down (E). ⚠

3. Press the enter (C) button.

Selecting a white color temperature



1. Use the up (D)/ down (E) buttons to select the **CAL1** menu and press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select a white color from **WH.01 - WH11** (11 preset color temperatures).

Making a custom white color

1. Use the up (D)/ down (E) buttons to select the **CAL2** menu and press the enter (C) button.
2. Use the up (D)/ down (E) buttons to select **RED**, **GREN** or **BLUE** and press the enter button.
3. Use the up (D)/ down (E) buttons to edit the selected parameter.
4. Repeat step 1-2 until you have created the optimum white color.

Once you've edited one color, you are able to switch between R, G and B by pressing the enter (C) button.

Reset white to factory settings

1. Use the up (D)/ down (E) buttons to select the **CALR** menu and press the enter (C) button.
2. Enter the password.
 **Password: up(D) -> down (E) -> up (D) -> down (E).** 
3. Press the enter (C) button.
4. When the system is finished, the display will show **OK**.

DMX Channels

DMX Control TOUR

Channel	Value	Function
1	000 – 255	Dimmer 0 – 100 %
2	000 – 255	Red 0 – 100 %; CH2 will control the STEP TIME , if CH9 is set to custom 01-10 (only if CH9 141-255)
3	000 – 255	Green 0 – 100 %; CH3 will control the FADE TIME , if CH9 is set to custom 01-10 (only if CH9 141-255)
4	000 – 255	Blue 0 – 100 %
5	000 – 255	White 0 – 100 %
6	000 – 255	Amber 0 – 100 %
7	000 – 010 011 – 030 031 – 050 051 – 070 071 – 090 091 – 110 111 – 130 131 – 150 151 – 170 171 – 200 201 – 205 206 – 210 211 – 215 216 – 220 221 – 225 226 – 230 231 – 235 236 – 240 241 – 245 246 – 250 251 – 255	Macro Colors No Function Red 100% / Green Up / Blue 0% Red Down / Green 100% / Blue 0% Red 0% / Green 100% / Blue Up Red 0% / Green Down / Blue 100% Red Up / Green 0% / Blue 100% Red 100% / Green 0% / Blue Down Red 100% / Green Up / Blue Up Red Down / Green Down / Blue 100% Red 100% / Green 100% / Blue 100% / White 100% / Amber 100% White 1: 3200K White 2: 3400K White 3: 4200K White 4: 4900K White 5: 5600K White 6: 5900K White 7: 6500K White 8: 7200K White 9: 8000K White 10: 8500K White 11: 10000K
8	000 – 009 010 – 099 100 – 109 110 – 179 180 – 189 190 – 255	Spec strobe No strobe Strobe (slow to fast) No strobe Lightning strobe (slow to fast) No strobe Random strobe (slow to fast)
	000 – 009 010 – 019 020 – 029 030 – 039 040 – 049 050 – 059 060 – 069 070 – 079 080 – 089 090 – 099 100 – 109 110 – 119 120 – 129 130 – 139 140 – 149 150 – 159 160 – 169 170 – 179 180 – 189 190 – 199	Clas strobe 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

	200 – 255	20
9	000 – 040 041 – 050 051 – 060 061 – 070 071 – 080 081 – 090 091 – 100 101 – 110 111 – 120 121 – 130 131 – 140 141 – 150 151 – 160 161 – 170 171 – 180 181 – 190 191 – 200 201 – 210 211 – 220 221 – 230 231 – 255	Auto + Custom No Function Auto 1 Auto 2 Auto 3 Auto 4 Auto 5 Auto 6 Auto 7 Auto 8 Auto 9 Auto 10 Custom 1 Custom 2 Custom 3 Custom 4 Custom 5 Custom 6 Custom 7 Custom 8 Custom 9 Custom 10
10	000 – 255	Auto Speed. CH10 will control the Auto speed , if CH9 is set to AUTO 1-AUTO 10 (only if CH9 041-140)
11	000 – 009 010 – 029 030 – 069 070 – 129 130 – 189 190 – 255	Dimmer Speed. Return settings Linear Dimmer Non Linear Dimmer (fastest) 1 Non Linear Dimmer 2 Non Linear Dimmer 3 Non Linear Dimmer 4 (slowest)

MASTER DIMMER

- CH1 controls the intensity of the currently projected color.
- When the fader is at 255, the intensity of the output is at its maximum.

RED, GREEN, BLUE, WHITE & AMBER SELECTION

- Channels 2, 3, 4, 5 and 6 control the overall intensity of each respective color.
- Channels 2, 3, 4, 5 and 6 can be combined to create an unlimited range of colors.

COLOR MACROS & WHITE BALANCE

- Channel 7 selects the required COLOR MACRO and whites in different colors.
- Channel 7 has priority over channels 2, 3, 4, 5 and 6.
- Channel 1 is used to control the intensity of the COLOR MACRO.

STROBE

- CH8 is the strobe channel and controls the strobe effects of CH2, CH3, CH4, CH5 and CH6.
- The **Set->Strobe** menu allows you to select either **Spec** strobe or **Clas** strobe.

AUTO

- Channel 9 selects the preset AUTO and CUSTOM programs (1-10).
- Channel 9 has priority over channels 2, 3, 4, 5, 6, 7 and 8.
- When activating the custom AUTO programs 1-10, it is possible to control the **Step Time (CH2)** and **Fade Time (CH3)**.

DIMMER SPEED

Use channel 11 to select specific dimmer mode and dimmer speed. When DIMMER is set to OFF, then RGBWA and the MASTER DIMMER are linear. Dim 1/2/3/4 are speed modes of the non linear dimmer. DIM1 is fastest, and DIM4 is slowest.

DMX Control TR16

Channel	Value	Function
1	000 – 255	Dimmer 0 – 100 %
2	000 – 255	Dimmer fine 0 – 100 %; CH2 will control the STEP TIME , if CH15 is set to custom 01-10 (only if CH15 141-255)
3	000 – 255	Red 0 – 100 %; CH3 will control the FADE TIME , if CH15 is set to custom 01-10 (only if CH15 141-255)
4	000 – 255	Red fine 0 – 100 %
5	000 – 255	Green 0 – 100 %
6	000 – 255	Green fine 0 – 100 %
7	000 – 255	Blue 0 – 100 %
8	000 – 255	Blue fine 0 – 100 %
9	000 – 255	White 0 – 100 %
10	000 – 255	White fine 0 – 100 %
11	000 – 255	Amber 0 – 100 %
12	000 – 255	Amber fine 0 – 100 %
13	000 – 010 011 – 030 031 – 050 051 – 070 071 – 090 091 – 110 111 – 130 131 – 150 151 – 170 171 – 200 201 – 205 206 – 210 211 – 215 216 – 220 221 – 225 226 – 230 231 – 235 236 – 240 241 – 245 246 – 250 251 – 255	Macro Colors No Function Red 100% / Green Up / Blue 0% Red Down / Green 100% / Blue 0% Red 0% / Green 100% / Blue Up Red 0% / Green Down / Blue 100% Red Up / Green 0% / Blue 100% Red 100% / Green 0% / Blue Down Red 100% / Green Up / Blue Up Red Down / Green Down / Blue 100% Red 100% / Green 100% / Blue 100% / White 100% / Amber 100% White 1: 3200K White 2: 3400K White 3: 4200K White 4: 4900K White 5: 5600K White 6: 5900K White 7: 6500K White 8: 7200K White 9: 8000K White 10: 8500K White 11: 10000K
14	000 – 009 010 – 099 100 – 109 110 – 179 180 – 189 190 – 255 000 – 009 010 – 019 020 – 029 030 – 039 040 – 049 050 – 059 060 – 069 070 – 079 080 – 089 090 – 099	Spec Strobe No strobe Strobe (slow to fast) No strobe Lightning strobe (slow to fast) No strobe Random strobe (slow to fast) Clas Strobe 0 1 2 3 4 5 6 7 8 9

	100 – 109	10
	110 – 119	11
	120 – 129	12
	130 – 139	13
	140 – 149	14
	150 – 159	15
	160 – 169	16
	170 – 179	17
	180 – 189	18
	190 – 199	19
	200 – 255	20
15	000 – 040 041 – 050 051 – 060 061 – 070 071 – 080 081 – 090 091 – 100 101 – 110 111 – 120 121 – 130 131 – 140 141 – 150 151 – 160 161 – 170 171 – 180 181 – 190 191 – 200 201 – 210 211 – 220 221 – 230 231 – 255	Auto + Custom No Function Auto 1 Auto 2 Auto 3 Auto 4 Auto 5 Auto 6 Auto 7 Auto 8 Auto 9 Auto 10 Custom 1 Custom 2 Custom 3 Custom 4 Custom 5 Custom 6 Custom 7 Custom 8 Custom 9 Custom 10
16	000 – 255	Auto Speed. CH10 will control the Auto speed , if CH15 is set to AUTO 1-AUTO 10 (only if CH15 041-140)
17	000 – 009 010 – 029 030 – 069 070 – 129 130 – 189 190 – 255	Dimmer Speed. Return settings Linear Dimmer Non Linear Dimmer (fastest) 1 Non Linear Dimmer 2 Non Linear Dimmer 3 Non Linear Dimmer (slowest) 4

MASTER DIMMER

- Channel 1/2 control the intensity of the currently projected color.
- When the fader is at 255, the intensity of the output is at its maximum.

RED, GREEN, BLUE, WHITE & AMBER SELECTION

- Channels 3/4, 5/6, 7/8, 9/10 and 11/12 control the overall intensity of each respective color.
- Channels 3/4, 5/6, 7/8, 9/10 and 11/12 can be combined to create an unlimited range of colors.

COLOR MACROS & WHITE BALANCE

- Channel 13 selects the required COLOR MACRO and whites in different colors.
- Channel 13 has priority over channels 3/4, 5/6, 7/8, 9/10 and 11/12.
- Channel 1 and 2 are used to control the intensity of the COLOR MACRO.

STROBE

- CH14 is the strobe channel and controls the strobe effects of CH3/4, CH5/6, CH7/8, CH 9/10 and CH11/12.
- The **Set->Strobe** menu allows you to select either **Spec** strobe or **Clas** strobe.

AUTO

- Channel 15 selects the preset AUTO and CUSTOM programs (1-10).
- Channel 15 has priority over channels 3/4, 5/6, 7/8, 9/10 and 11/12.
- When activating the custom AUTO programs 1-10, it is possible to control the **Step Time (CH2)** and **Fade Time (CH3)**.

DIMMER SPEED

Use channel 17 to select specific dimmer mode and dimmer speed. When DIMMER is set to OFF (**CH17 000-009**), then RGBWA and the MASTER DIMMER are linear. Dim 1/2/3/4 are speed modes of the non linear dimmer. DIM1 is fastest, and DIM4 is slowest.

DMX Control ARC1

Channel	Value	Function
1	000 – 255	Red 0 – 100 %
2	000 – 255	Green 0 – 100 %
3	000 – 255	Blue 0 – 100 %

DMX Control AR1.D

Channel	Value	Function
1	000 – 255	Dimmer 0 – 100 %
2	000 – 255	Red 0 – 100 %
3	000 – 255	Green 0 – 100 %
4	000 – 255	Blue 0 – 100 %

DMX Control ARC2

Channel	Value	Function
1	000 – 255	Red 0 – 100 %
2	000 – 255	Green 0 – 100 %
3	000 – 255	Blue 0 – 100 %
4	000 – 255	White 0 – 100 %

DMX Control ARC3

Channel	Value	Function
1	000 – 255	Red 0 – 100 %
2	000 – 255	Green 0 – 100 %
3	000 – 255	Blue 0 – 100 %
4	000 – 255	White 0 – 100 %
5	000 – 255	Amber 0 – 100 %

DMX Control AR3.D

Channel	Value	Function
1	000 – 255	Dimmer 0 – 100 %
2	000 – 255	Red 0 – 100 %
3	000 – 255	Green 0 – 100 %
4	000 – 255	Blue 0 – 100 %
5	000 – 255	White 0 – 100 %
6	000 – 255	Amber 0 – 100 %

DMX Control AR3.S

Channel	Value	Function
1	000 – 255	Dimmer 0 – 100 %
2	000 – 255	Red 0 – 100 %
3	000 – 255	Green 0 – 100 %
4	000 – 255	Blue 0 – 100 %
5	000 – 255	White 0 – 100 %
6	000 – 255	Amber 0 – 100 %
7	000 – 255	Strobe 0 – 100 %

DMX Control HSV

Channel	Value	Function
1	000 – 255	Hue (Color variations) 0 – 100 %
2	000 – 255	Saturation of color Red 0 – 100 %
3	000 – 255	Value (Dimmer) 0 – 100 %

DMX Control PIX1

Channel	Value	Function
1	000 – 255	P1 Red 0 – 100 %
2	000 – 255	P1 Green 0 – 100 %
3	000 – 255	P1 Blue 0 – 100 %
4	000 – 255	P2 Red 0 – 100 %
5	000 – 255	P2 Green 0 – 100 %
6	000 – 255	P2 Blue 0 – 100 %



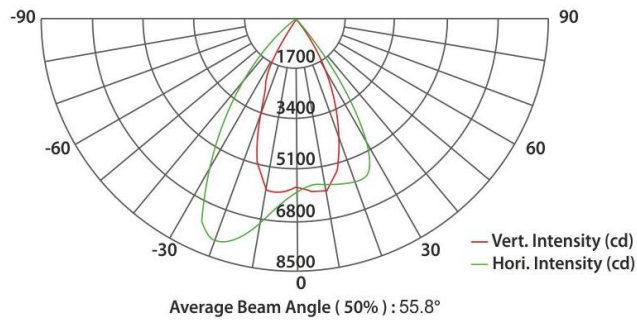
DMX Control PIX3

Channel	Value	Function
1	000 – 255	P1 Red 0 – 100 %
2	000 – 255	P1 Green 0 – 100 %
3	000 – 255	P1 Blue 0 – 100 %
4	000 – 255	P1 White 0 – 100 %
5	000 – 255	P1 Amber 0 – 100 %
6	000 – 255	P2 Red 0 – 100 %
7	000 – 255	P2 Green 0 – 100 %
8	000 – 255	P2 Blue 0 – 100 %
9	000 – 255	P2 White 0 – 100 %
10	000 – 255	P2 Amber 0 – 100 %

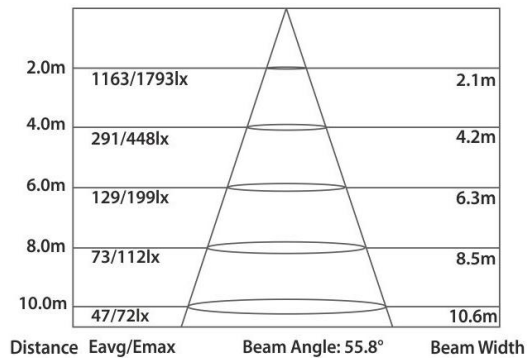


Beam Angle and illuminance

Intensity Distribution



Illuminance at Distance



Maintenance

The Horizon 8 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. Wipe the plastic front panel clean with glass cleaner and a soft cloth. Do not use alcohol or solvents. The plastic front panel will require weekly cleaning, as smoke-fluid tends to build up residues, reducing the light-output very quickly. Do not immerse in liquid. 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.

The operator has to make sure that safety-relating 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-relating 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:

1. All screws used for installing the device or parts of the device have to be tightly connected and must not be corroded.
2. There may not be any deformations on housings, fixations and installation spots.
3. Mechanically moving parts like axles, eyes and others may not show any traces of wearing.
4. The electric power supply cables must not show any damages or material fatigue.

Replacing a Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below to do so.

1. Unplug the unit from electric power source.
2. Insert a flat-head screwdriver into a slot in the fuse cover. Turn the screwdriver to the left, at the same time gently push a bit (Turn and Push). The fuse will come out.
3. Remove the used fuse. If brown or unclear, it is burned out.
4. Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover. Be sure to use a fuse of the same type and specification. See the product specification label for details

Troubleshooting

No Light

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.

If the light effect does not operate properly, refer servicing to a technician.

Response: Suspect three potential problem areas: the power supply, the LEDs and the fuse.

1. Power supply. Check that the unit is plugged into an appropriate power supply.
2. The LEDs. Return the Horizon 8 to your Showtec dealer.
3. The fuse. Replace the fuse. See page 29 for replacing the fuse.
4. If all of the above appears to be O.K., plug the unit in again.
5. If you are unable to determine the cause of the problem, do not open the Horizon 8, as this may damage the unit and the warranty will become void.
6. Return the device to your Showtec dealer.

No Response to DMX

Response: Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

1. Check the DMX setting. Make sure that DMX addresses are correct.
2. Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power. Try your DMX control again.
3. 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.

See the table below for more problem solving.

Problem	Probable cause(s)	Remedy
One or more fixtures are completely dead.	No power to the fixture	<ul style="list-style-type: none"> • Check that power is switched on and cables are plugged in.
Fixtures reset correctly, but all respond erratically or not at all to the controller.	The controller is not connected.	<ul style="list-style-type: none"> • Connect controller.
	3-pin XLR Out of the controller does not match XLR Out of the first fixture on the link (i.e. signal is reversed).	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Inspect connections and cables. Correct poor connections. Repair or replace damaged cables.
	Data link not terminated with 120 Ohm termination plug.	<ul style="list-style-type: none"> • Insert termination plug in output jack of the last fixture on the link.
	Incorrect addressing of the fixtures.	<ul style="list-style-type: none"> • Check address setting.
	One of the fixtures is defective and disturbs data transmission on the link.	<ul style="list-style-type: none"> • Bypass one fixture at a time until normal operation is regained: unplug both connectors and connect them directly together. • Have the defective fixture serviced by a qualified technician.
	3-pin XLR Out on the fixtures does not match (pins 2 and 3 reversed).	<ul style="list-style-type: none"> • Install a phase-reversing cable between the fixtures or swap pin 2 and 3 in the fixture, which behaves erratically.
No light	Fixture is too hot.	<ul style="list-style-type: none"> • Allow fixture to cool. • Make sure air vents at control panel and front lens are not blocked. • Turn up the air conditioning.
	LEDs damaged	<ul style="list-style-type: none"> • Disconnect fixture and return to your dealer.
	The power supply settings do not match local AC voltage and frequency.	<ul style="list-style-type: none"> • Disconnect fixture. Check settings and correct if necessary.

Product Specification

Light Source

LED Qty.: 32 x Red, 32 x Green, 32 x Blue, 16 x White, 16 x Amber
Refresh rate: 1200Hz
Drive Current: 700mA
Colour Range: 16.7 million additive RGB colours
with full saturation control

Electrical

Input Voltage: 100~240 VAC...50/60Hz
Power consumption: 298W
Cosφ: 0,96

Output

Max. Flux: 7200lm
Peak Intensity: 8400cd
Optical System Dimmer: 0-100%
Strobe: 0-20Hz
Beam Angle: 45 x 60°

Control

On-board: Display for Auto, Static colour and Custom control
Control Protocol: DMX512
Control Personality: TOUR, TR16, PIX1, PIX3, ARC1, AR1.D, ARC3, AR3.D, AR3.S, HSV, PIX1, PIX3
(11CHS/17CHS/3CHS/4CHS/5CHS/6CHS/7CHS/3CHS/6CHS/10CHS)

Physical

Housing: Steel, black anodized/ Flame-retardant plastic
IP Rating: IP-20
Operation temperature: -20 to +45 degrees
Dimensions: 622 x 310 x 299
Weight: 15kg
Cooling LEDs: Convection (no fans)
Cooling PSU: Fan



Additional Features

LED display with password protection

Minimum distance

Minimum distance from flammable surfaces: 0,5m
Minimum distance to lighted object: 1,3m
Max. ambient temperature t_a : 45°C; Max. housing temperature t_B : 80°C

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



Website: www.Showtec.info

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