

# FOS 100 POWER FC

FOS 100 POWER FC



FOS 100 POWER SOLO FC



User's Manual rel 1.4 **GB**

D.T.S. Illuminazione s.r.l. – ITALY  
<http://www.dts-lighting.it>



The Lighting Company

**Made in Italy**

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## **1- SYMBOLS**

Graphic symbols used on this manual:



**THIS SYMBOL INDICATES A HOT SURFACE**



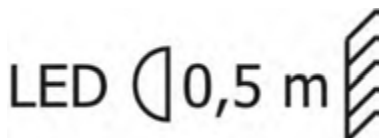
**THIS SYMBOL INDICATES ELECTRIC SHOCK RISK**



**THIS SYMBOL INDICATES GENERAL RISK**



**THIS SYMBOL MEANS YOU CAN PLACE THE UNIT ON NORMALLY FLAMMABLE SURFACES**



**THIS SYMBOL INDICATES THE MINIMUM DISTANCE BETWEEN THE UNIT AND THE ILLUMINATED OBJECT**



**THIS SYMBOL INDICATES THE EUROPEAN COMMUNITY DIRECTIVE 2002/96/EC ON WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)**

## **2- GENERAL WARNING**

Read the instruction contained in this user manual carefully, as they give important information regarding safety during installation, use and maintenance.

The unit is not for residential use and must be installed by a qualified electrician or experienced person. Do not open the unit. The level of technology inherent in the unit requires the assistance of specialised personnel for all servicing. Please refer to an authorised D.T.S. service centre. In case lenses sets replacement is needed, frontal gasket must be replaced so as to maintain IP 65 rate protection.

LEDs are not replaceable. The device must always be equipped with an efficient ground connection.

## **3- GENERAL WARRANTY CONDITIONS**

The unit is guaranteed for 36 months from the date of purchase against manufacturing material defects.

## **4- TECHNICAL FEATURES**

### **FOS 100 POWER SOLO FC**

#### **LED Technology**

24 x FULL RGBW LEDs; 7.028 Lux / 3 m;  
16 million colours; linear colour temperature 2700K – 6500K  
LEDs average lifespan: 75.000 hours (70% lumen output)

#### **Optical group**

3 lenses sets available (Spot, Medium flood, Wide flood)

#### **Control**

Via any DMX lighting console

#### **Protection level**

IP20 or IP65

#### **Construction**

FOS units are made on extruded aluminium

#### **Connections**

FOS 100 POWER SOLO IP20: POWERCON In/Out + XLR 5 poles In/Out  
FOS 100 POWER SOLO IP65: Power input cable with cable gland; HARTING power re-send panel connector; XLR 5 poles In/Out (IP20)

#### **Power supply**

Integrated Z10 POWER IP20 or IP65 PSU (FOS 100 POWER SOLO)  
Electronic full range 90-260Vac 50-60 Hz

#### **Power consumption**

200W

## **4- TECHNICAL FEATURES**

### **FOS 100 POWER FC**

#### **LED Technology**

24 x FULL RGBW LEDs; 7.028 Lux / 3 m;  
16 million colours; linear colour temperature 2700K – 6500K  
LEDs average lifespan: 75.000 hours (70% lumen output)

#### **Optical group**

3 lenses sets available (Spot, Medium flood, Wide flood)

#### **Control**

Via any DMX lighting console (External power supply / LED Controller required)

#### **Protection level**

IP65

#### **Construction**

FOS units are made on extruded aluminium

#### **Connections**

M16 male connector + 30 cm cable connection system between Power supply and LED bar

#### **Power supply**

External dedicated Z40 power supply / LED controller  
Electronic full range 90-260Vac 50-60 Hz

#### **Max current**

1600mA

#### **Power consumption**

200W

## **6- ACCESSORIES**

### **As standard (IP20)**

1 x User's Manual  
 1 x POWERCON IN male cable connector (FOS 100 POWER SOLO)  
 (D.T.S. Code: 0520P014)  
 1 x POWERCON OUT male cable connector (FOS 100 POWER SOLO)  
 (D.T.S. Code: 0520P029)  
 1 x XLR 5 poles male cable connector (D.T.S. Code: 0508B028)  
 1 x XLR 5 poles female cable connector (D.T.S. Code: 0508B027)  
 1 x Joint/spacer (D.T.S. Code: 00M09519.46 black finish; 00M09519.44 grey finish) with  
 2 x knobs (D.T.S. Code: 0511P014)

### **As standard (IP65)**

1 x User's Manual  
 1 x HARTING 5 poles male cable connector (D.T.S. Code: 02LD0093.1)  
 1 x Joint/spacer (D.T.S. Code: 00M09519.46 black finish; 00M09519.44 grey finish) with  
 2 x knobs (D.T.S. Code: 0511P014)

### **Optional (on request)**

Lenses set Spot (FOS 100 POWER FULLCOLOUR) (D.T.S. Code 03.LK.107)  
 Lenses set Medium flood (FOS 100 POWER FULLCOLOUR) (D.T.S. Code 03.LK.108)  
 Lenses set Wide flood (FOS 100 POWER FULLCOLOUR) (D.T.S. Code 03.LK.109)

Lenses set Medium flood (FOS 100 POWER RGBW) (D.T.S. Code 03.LK.114)  
 Lenses set Wide flood (FOS 100 POWER RGBW) (D.T.S. Code 03.LK.115)

G60 "C" Clamp (Max. load 50 Kg) \*Black (D.T.S. Code 0521A004)  
 G50 "C" Clamp (Max. load 10 Kg) \*Black (D.T.S. Code 0521A012)

M16 female (9 poles) cable connector (D.T.S. Code 0508B106)  
 M16 male (9 poles) cable connector (D.T.S. Code 0508B105)

Z40 Power supply / LED controller (FOS 100 POWER) (D.T.S. Code 03.LA.120)

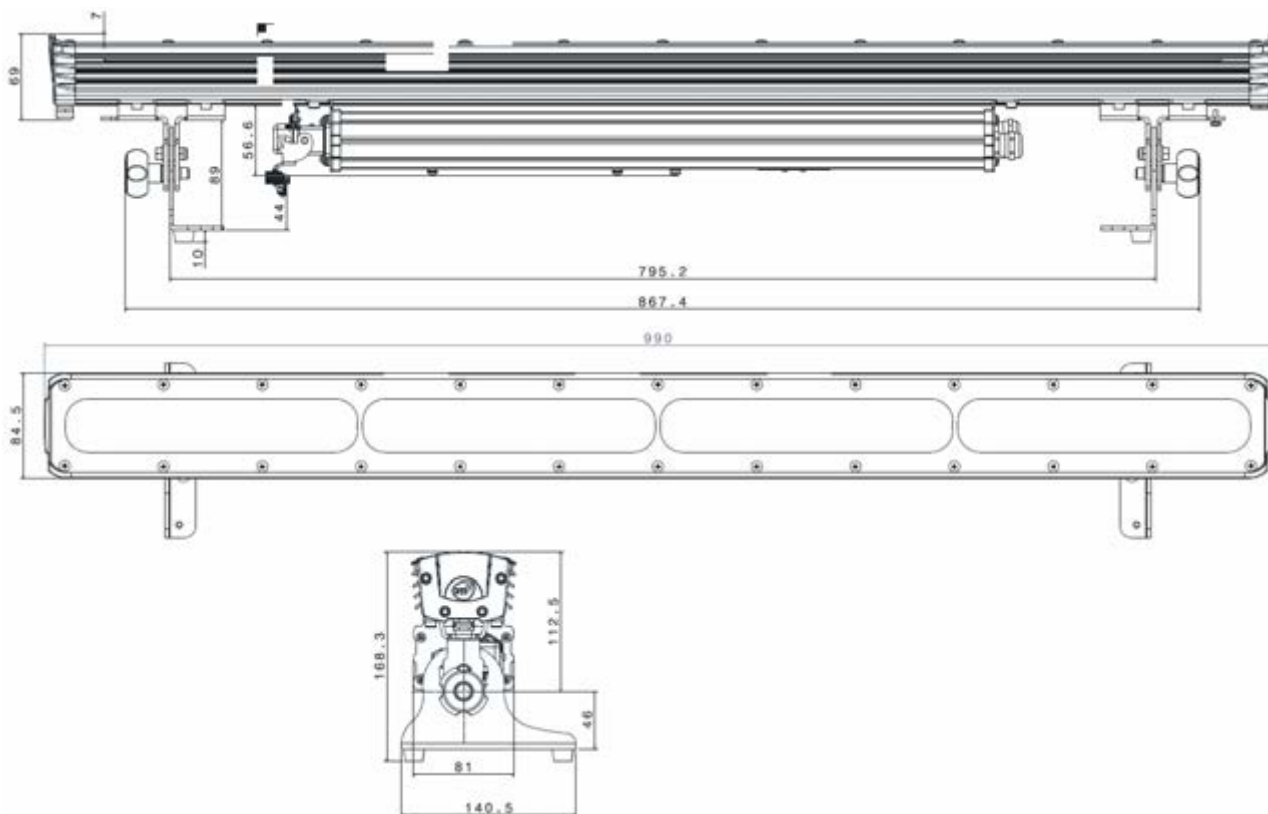
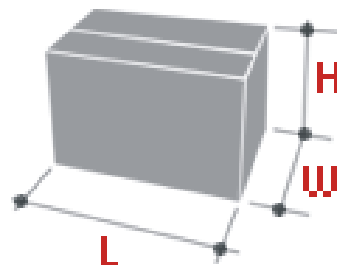
**DIMENSIONS****FOS 100 POWER SOLO**

Unit Dimensions  
(LxWxH)  
990 x 81 x 168,3 mm

Weight  
7 Kg

Packing Dimensions  
(LxWxH)  
1060 x 160 x 200 mm

Weight  
8,5 Kg





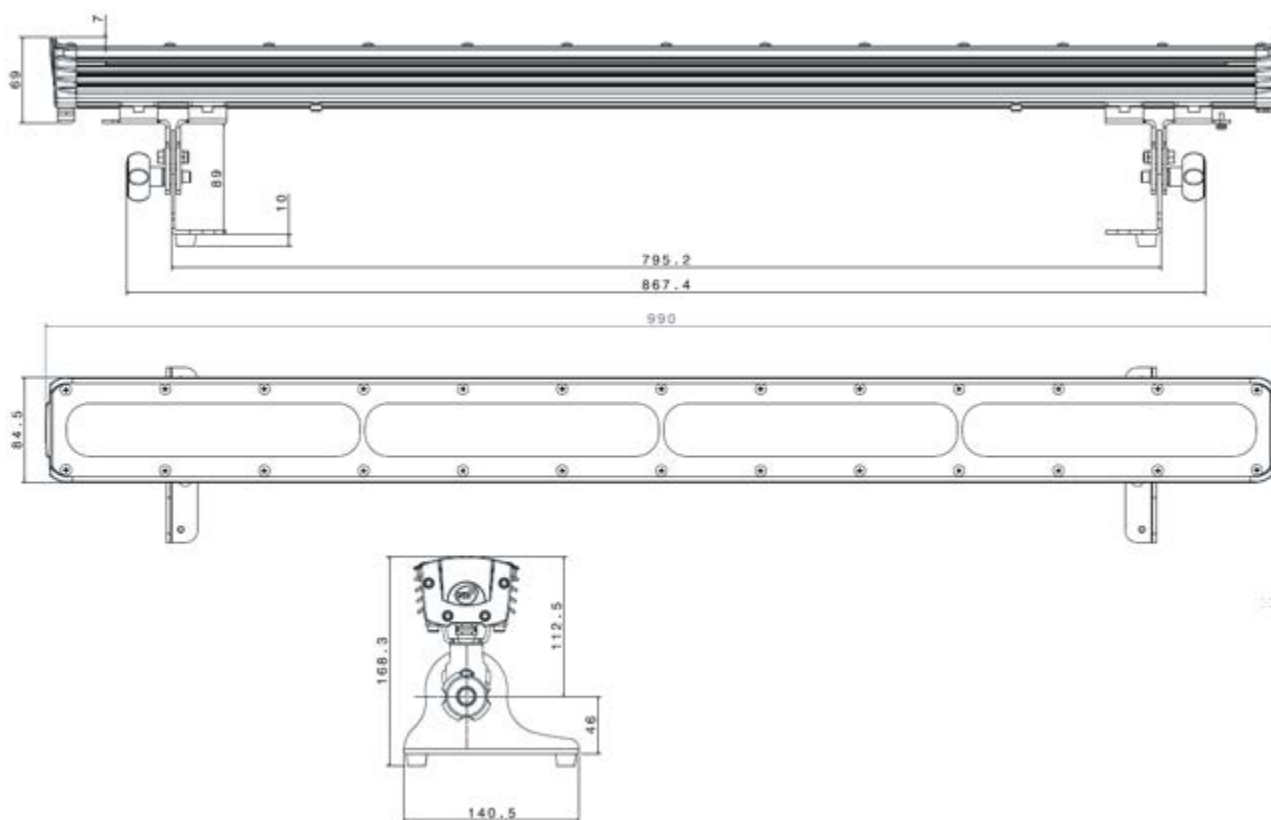
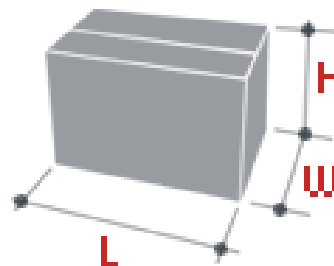
**FOS 100 POWER**

Unit Dimensions  
(LxWxH)  
990 x 56 x 84,5 mm

Weight  
5,5 Kg

Packing Dimensions  
(LxWxH)  
1060 x 160 x 200 mm

Weight  
7 Kg



## **7- IMPORTANT SAFETY INFORMATION**

### **7.1 Fire prevention:**

It is permissible to place the unit on normally flammable surfaces.  
Suitable for mounting on normally flammable materials surfaces greater than 200°C with some combustion time lag.

Minimum distance from the closest illuminable surface: 0,5 m. LED  

### **7.2 Prevention from electric shock:**



High voltage is present inside the unit.

Unplug the unit prior to performing any operation which involves touching the inside of the unit.

This equipment must be grounded, do not connect to non-grounded supplies.

The use of a thermal magnetic circuit breaker is recommended for each FOS 100 POWER SOLO unit.

Use only AC supplies 90-260V 50-60 Hz.

FOS 100 POWER SOLO IP20 should never be located in position exposed to rain or in areas of extreme humidity.

A good air ventilation is essential for proper equipment work.

### **7.3 Safety:**



The external surface of the unit may exceed 50°C;



never handle the unit until at least 5 minutes have elapsed since the unit was turned off.

Never install the unit in an enclosed area lacking sufficient air flow.

The ambient temperature should not exceed 40°C and should not be lower than -10°C.

### **7.4 Level of protection against the penetration of solid and liquid objects:**



The unit is classified as an outdoor appliance and its protection level against the penetration of solid and liquid objects is IP 65 (FOS 100 POWER).

### **7.5 Waste Electrical and Electronic Equipment (WEEE) directive:**



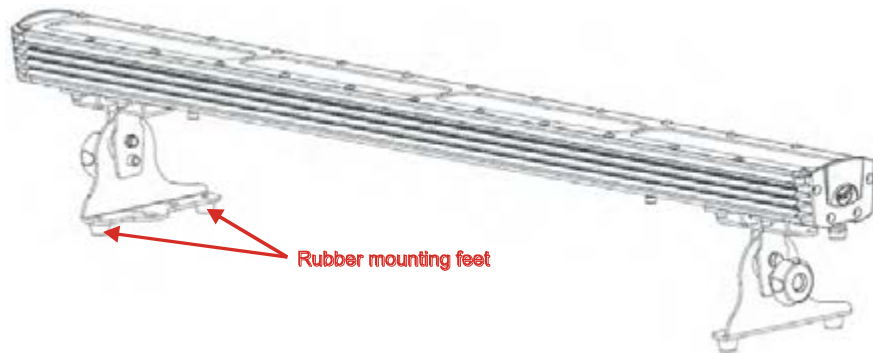
The LED bar, accessories and packaging should be sorted for environmental-friendly recycling.

For EC countries: according to the European Directive 2002/96/EC for Waste Electrical and Electronic Equipment and its implementation into national right, luminaires that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

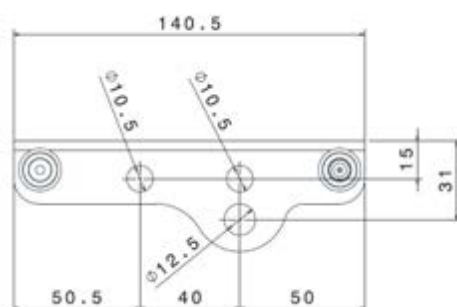
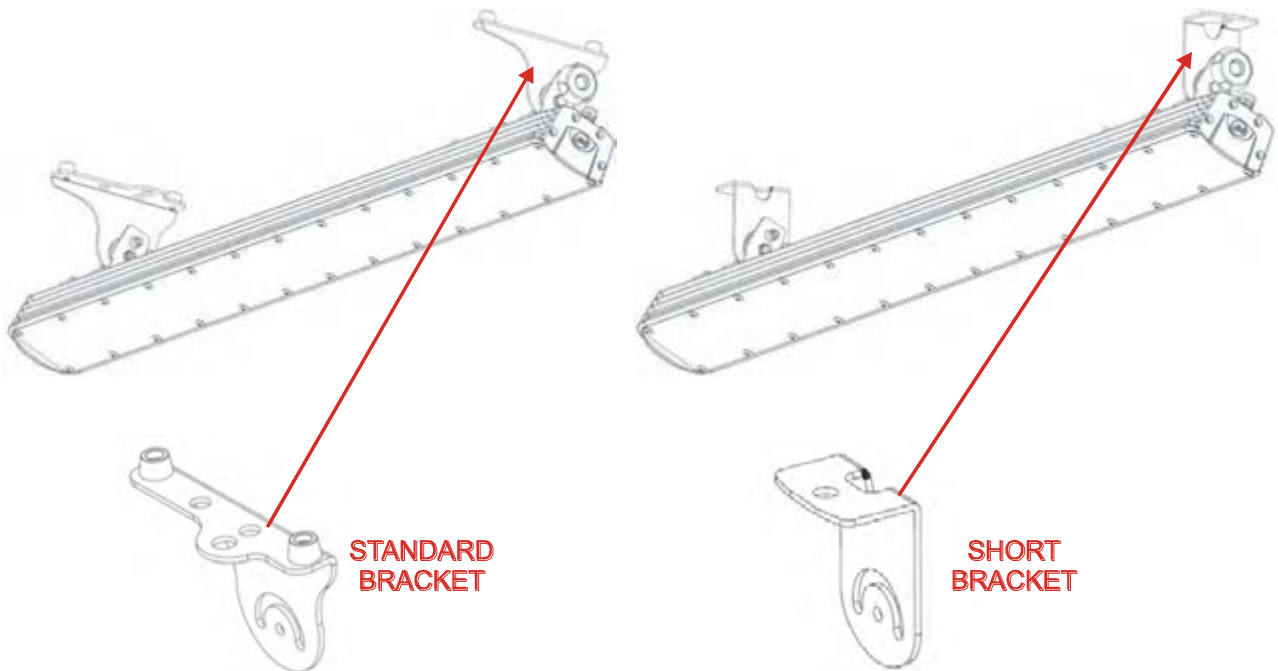
## 8- INSTALLATION

The unit is suitable for use in wet locations.  
The unit may be either floor or ceiling mounted.

### FLOOR MOUNTING INSTALLATION:



### CEILING MOUNTING INSTALLATION:



**9- INPUT / OUTPUT CONNECTIONS**

**FOS 100 POWER SOLO IP20**

**LED OUTPUT**  
M16 Female panel connector

**DMX IN / OUT**  
XLR 5 poles Male / Female panel connectors

**LED INPUT**  
M16 Male cable connector

**MAINS INPUT**  
90-260Vac 50-60 Hz  
POWERCON panel connector

**MAINS OUTPUT**  
90-260Vac 50-60 Hz  
POWERCON panel connector  
Max 5 FOS 100 PWR SOLO @ 120Vac

M16 Female panel connector

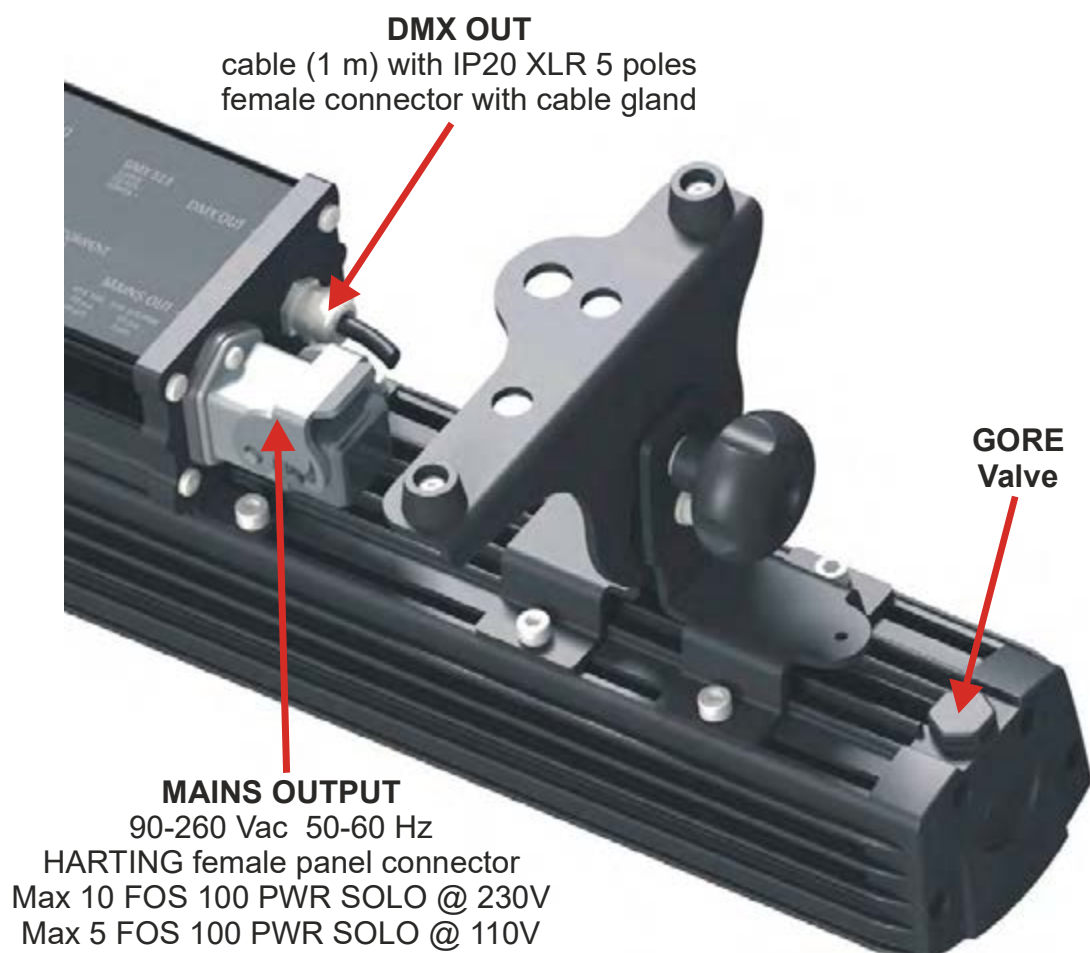
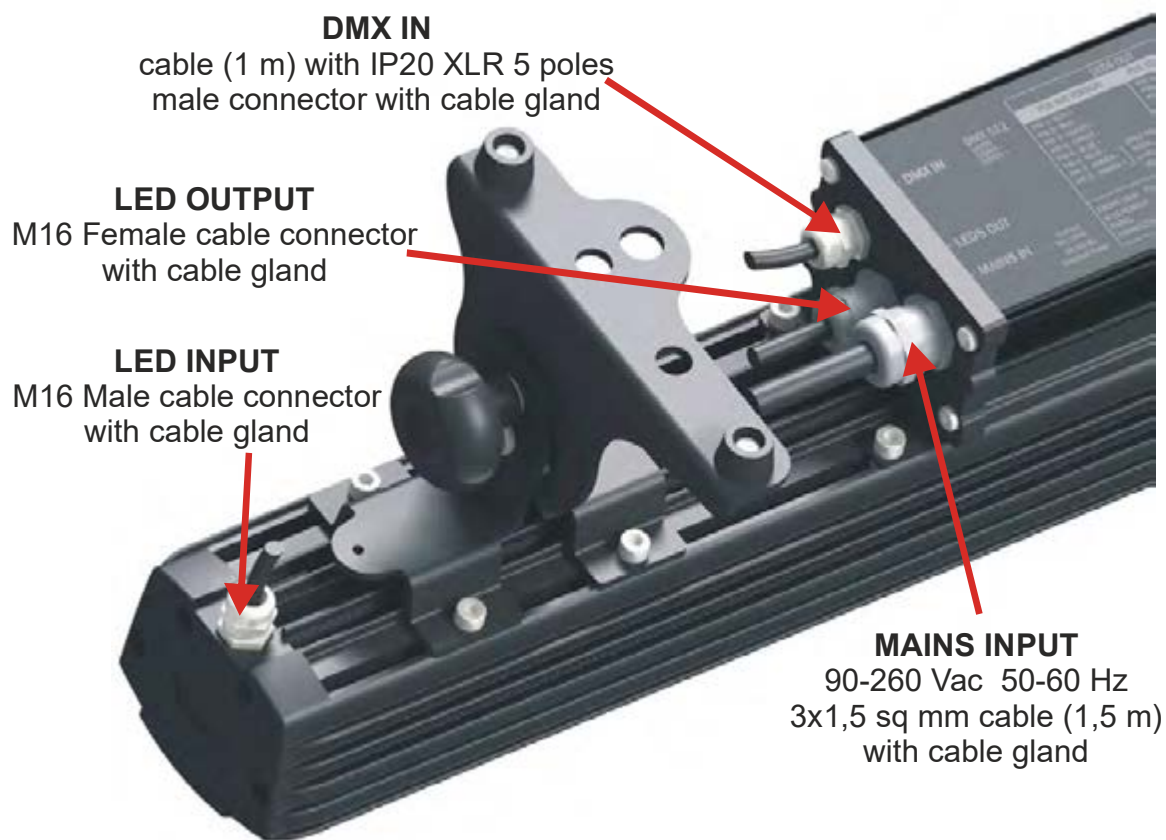
Front View

M16 Male cable connector

Front View

LED OUTPUTS		
WIRES SEQUENCE COLOURS	PIN OUT	
PIN 1 - BLUE	PIN 1: RED +	
PIN 2 - GREEN	PIN 2: GREEN +	
PIN 3 - YELLOW	PIN 3: BLUE +	
PIN 4 - ORANGE	PIN 4: WHITE +	
PIN 5 - RED	PIN 5: COMMON	
PIN 6 - BROWN	PIN 6: ( RED - GREEN - BLUE - )	
PIN 7 - BLACK		PIN 7: WHITE -
PIN 8 - GREY		PIN 8: NTC (THERMAL)
PIN 9 - WHITE	PIN 9: NTC (SENSOR)	

## FOS 100 POWER SOLO IP65

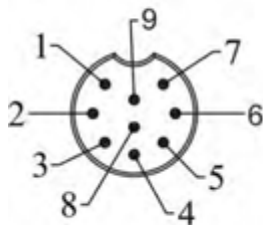


## FOS 100 POWER (IP65)



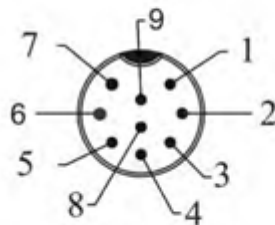
**LED INPUT**  
M16 Male cable connector

M16 Female  
panel connector



Front View

M16 Male  
cable connector



Front View

## LED OUTPUTS

WIRES SEQUENCE COLOURS	PIN OUT
PIN 1 - BLUE	PIN 1: RED +
PIN 2 - GREEN	PIN 2: GREEN +
PIN 3 - YELLOW	PIN 3: BLUE +
PIN 4 - ORANGE	PIN 4: WHITE +
PIN 5 - RED	PIN 5: COMMON
PIN 6 - BROWN	PIN 6: (RED - GREEN - BLUE -)
PIN 7 - BLACK	PIN 7: WHITE -
PIN 8 - GREY	PIN 8: NTC (THERMAL)
PIN 9 - WHITE	PIN 9: NTC (SENSOR)

## **10- DMX SIGNAL CONNECTION (FOS 100 POWER SOLO):**

The unit operates using a digital DMX 512 signal.

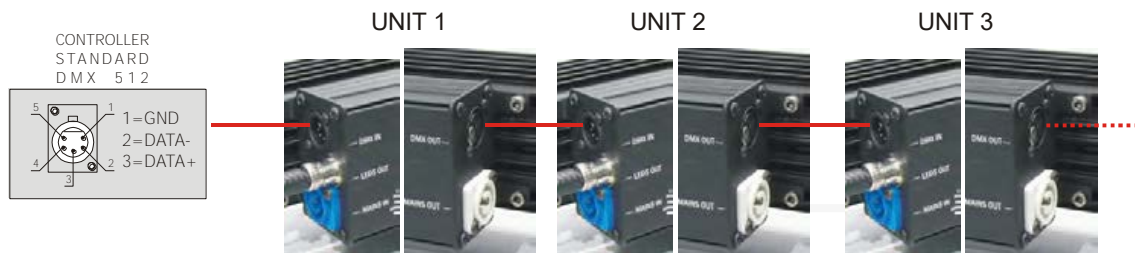
Connection between the controller and the unit or between units must be carried out using a two pair screened  $\varnothing$  0.5 mm.

Ensure that the conductors do not touch each other.

Do not connect the cable ground to the DMX connector chassis.

The plug housing must be isolated. Connect the mixer signal to the DMX IN projector plug and connect it to the next projector by connecting the DMX OUT plug on the first unit to the DMX IN plug of the second one.

In this way, all the projectors are cascade connected.



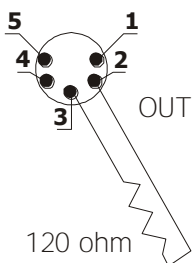
If the display showing the DMX address flashes, then one of the following errors has occurred:

- DMX signal not present
- DMX reception problem

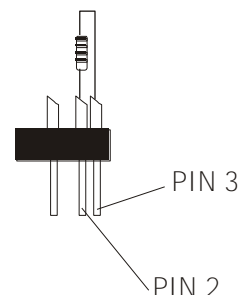
For Installations where long distance DMX cable connections are needed, we suggest to use a DMX terminator.

The DMX terminator is a male XLR 3-5 pins connector with a 120 ohm resistor Between pin 2 and 3.

The DMX terminator must be plugged into the last unit (DMX out panel connector) of the DMX line.



**PLACE A 120 OHM RESISTOR BETWEEN PIN 2 AND 3 OF A MALE XLR CONNECTOR AND PLUG IT INTO THE DMX OUT PANEL CONNECTOR OF THE LAST UNIT CONNECTED TO THE DMX LINE**



## **10.1 DMX addresses**

FOS 100 POWER SOLO (all models) can be used in seven different modes: 10 DMX channels mode (default), 6 DMX channels mode (Shutter + Dimmer + RGBW), WALL mode (6 DMX channels; for use with DTS Wall mounted DMX controller 0514L007), M4CH mode (5 DMX channels; Dimmer + RGBW), RGBW mode (4 channels), 1 DMX channel mode or CUSTOM DMX mode (not yet implemented).

If you want to use the FOS 100 POWER SOLO in 10 channels mode, select the 10 CH mode from the MODE menu and set the following addresses on the mixer:

Projector 1	A001	
Projector 2	A011	If you want to select the next projector, just add "10"
Projector 3	A021	
.....	A....	
projector 6	A051	

If you want to use the FOS 100 POWER SOLO in "WALL" mode, select the "WALL" mode from the MODE menu and set the following addresses on the mixer: (To be used only with DTS Wall mounted DMX controller 0514L007)

Projector 1	A001	If you want to select the next projector, just add "8".
Projector 2	A009	DTS Wall mounted DMX controller 0514L007 assign
Projector 3	A017	8 DMX channels per unit even if some channels are
.....	A....	not used
projector 6	A041	

## **10.2 Selecting the DMX address**

1) Press the UP-DOWN key until you reach the required DMX address. The numbers on the display will start to flash (but the new DMX address hasn't yet been set).

2) Press ENTER to confirm your selection. The numbers on the display will stop flashing and the projector is now controlled by the new DMX address.

TIPS: if you keep pushed the UP or DOWN keys, the channels are calculated more quickly and you get a faster selection.



## **11- FIRMWARE UPDATING**

### **Warning:**

This procedure require a base knowledge of Windows computer applications.

**Please refer to an authorised D.T.S. service centre.**



To update the software version of the FOS 100 POWER SOLO you need:

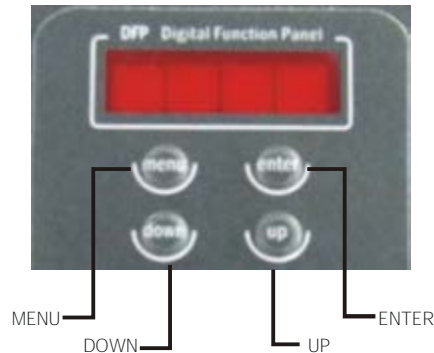
- D.T.S. RED BOX interface (D.T.S. Code: 03.LA.008).
- USB-DMX Driver for the D.T.S. RED BOX interface.
- “D.T.S. Firmware upgrade utility” program.
- Latest software release available for FOS 100 POWER SOLO unit.

### **Updating the software version.**


Please follow the procedure below to perform the update:

1. Install the D.T.S. RED BOX USB-DMX driver on the PC you will use to update the unit software.
2. Connect the D.T.S. RED BOX interface to the PC by using a USB cable.
3. Connect the D.T.S. RED BOX interface to the fixture by using a DMX cable.
4. Download the new software version into the unit by using “D.T.S. Firmware upgrade utility” program.





































## 12- DISPLAY FUNCTIONS



The FOS 100 POWER SOLO display panel shows all the available functions . Using these functions, it is possible to change some of the parameters and add some functions. Changing the D.T.S. setting can vary the functions of the unit so that it does not respond to the DMX 512 signal used to control it. Carefully follow the instructions below before carrying out any variations or selections.

NOTE: the symbol  shows which key has to be pushed to obtain the desired function.

### Software version 5.16

 MENU  Up-Down	 ENTER  Up-Down	 ENTER  Up-Down	 ENTER
ADD 1	DISP	POS 1	AA Floor Position
<p>REVERSE DISPLAY Reverses display's reading depending on the mounting position (On the ground or suspended).</p> <p>DISPLAY STAND BY To turn off the display (after 5 seconds) or leave it always on.</p>			 ENTER UB Suspension Position  ENTER OFF Display OFF  ENTER ON Display Always ON
 MENU  Up-Down	 ENTER  Up-Down	 ENTER  Up-Down	 ENTER
<p>DMX MODE To select DMX mode : 10 DMX channels mode (default), 6 DMX channels mode (Shutter + Dimmer + RGB), WALL mode (6 DMX channels; for use with DTS Wall mounted DMX controller 0514L007), M4CH mode (5 DMX channels; Dimmer + RGBW), RGBW mode (4 channels), 1 DMX channel mode.</p> <p>AUX mode let you activate an external ON -OFF control on IR connector. (not yet implemented)</p> <p>CUSTOM DMX mode let you set the parameters for Shutter, Dimmer, Red, Green, Blue, Ctc. Macro and Function to the desired DMX channels. (not yet implemented)</p>			10CH 10CH (Default)  ENTER 6CH 6 CHANNELS  ENTER 15CH 15 CHANNELS  ENTER WALL WALL (6CH)  ENTER M4CH M4CH(5 CHANNELS)  ENTER RGBW RGBA(4 CHANNELS)  ENTER 1CH 1 CHANNEL  ENTER
 MENU  Up-Down	 ENTER  Up-Down	 ENTER  Up-Down	 ENTER
<p>MACRO Function enables channel mapping macro rainbow effects STD (default)</p>			SEL Custom mode enabled  ENTER Show Parameters Setting on Custom Mode  ENTER SET External ON – OFF control on IR connector  ENTER STD Standard mode enabled (Default)  ENTER EXT Extended mode enabled: Rainbow effects on MACRO channel  ENTER

— MENU Up-Down LED ENTER Up-Down rEd ENTER Up-Down nIn Default=0 ENTER

**LED**  
 RGBW Min/Max, Smooth  
 Compression, Sync and  
 Boost level values settings

nRk Default=100 ENTER

**RGBA MINIMUM VALUES**  
 This menu allows to select the  
 minimum levels for Red,  
 Green, Blue and White

Up-Down GrEE ENTER Up-Down nIn Default=0 ENTER

**RGBA MAXIMUM VALUES**  
 This menu allows to select the  
 maximum levels for Red,  
 Green, Blue and White

Up-Down bLUE ENTER Up-Down nIn Default=0 ENTER

These settings have priority  
 on Master Dimmer

Up-Down rAnbr ENTER Up-Down nIn Default=0 ENTER

**SMOOTH VALUE**  
 This menu allows to select the  
 value of the delay ( in  
 milliseconds) for RGBW and  
 Dimmer channels reaction to DMX  
 or Program variation.  
 Off=25 ms delay (Fast response)  
 20=250 ms delay (Slow response)

nRk Default=100 ENTER

Up-Down sNtH ENTER Up-Down 4 Range = Off-20 ENTER  
 Default = 4

Off = 25 ms  
 Instant response to DMX variation  
 20 = 250 ms  
 Smooth response to DMX variation

**COMPRESSION**  
 This menu allows to select  
 between Linear current output  
 or Quadratic current output for  
 LEDs  
 Default = Linear

Up-Down cONP ENTER Up-Down LI nE Linear=Linear ENTER  
 current output

**SYNC**  
 This menu allows to adjust the  
 PWM frequency in order to  
 reduce flickering in the process  
 of your camera recordings

Quadratic= ENTER  
 Linear light output

**BOOST DRIVING**  
 This menu allow to increase  
 the LED's current from 350  
 mA to 500 mA

Up-Down 54nc ENTER Up-Down 610 Range = ENTER  
 610 Hz - 20 KHz  
 Default = 610 Hz

bSt ENTER Up-Down On Boost mode activated ENTER

Up-Down OFF Boost mode deactivated ENTER

With BOOST active, the  
 LED's current is set to  
 500mA (30%more gain).  
 Default = Activated

  **AUTO**  **SURE**   **ChPr**  **SPEE**  **00 10** 

**WAIT** **00 10**

**AUTOMATIC MODE**  
Automatic demo game without  
DMX controller

**ChPr**  
Chase with 16 steps  
previously created in REC  
MODE  
Speed and Wait time  
selectable by user

**CUPr**  **rEd**  **120** 

**GrEE** **255**

**BLUE** **104**

**ANbr** **0**

**CUPr**  
RGB values selectable by  
user

**Rainbow (rAln)**  
Rainbow colours effect.  
Speed time selectable by user

**rAln**  **SPEE**  **00 10** 

**CU01-CU16**  
Color Macros as on DMX  
channel 8 (Macro)

**CU01**   

**CU02**

**CU 16**

**WHITE MACROS**  
16 macros for White color  
from 2800 to 6500 ° K

**DIMMER**  
Dimmer level selectable by  
user as on DMX channel 2  
(Dimmer)  
Dimmer level is active for all  
the programs and macros

**UH01**   

**UH02**

**UH03**

**UH04**

**UH05**

**UH.....**

**UH 16**

**SHUTTER**  
Shutter level selectable by  
user as on DMX channel 1  
(Shutter)  
Shutter level is active only for  
CU01/CU16 and Wh01/Wh16  
macros

**di nn**   **255** 


**SHUT**   **255** 

**ESC**

**ESC**  
Esc from Automatic Mode  
Menu

**REC MODE**  
 In DMX Recorder Mode, it is possible to create and store the scenes of the ChPr by using an external DMX controller.  
 The unit must be set to 10 channels MODE

**DMX Recorder Mode**  
 For the programming of ChPr by using a DMX controller, besides the 10 channels necessary to control the unit a further 3 DMX channels are needed.  
 So that in RECORDER mode ( via DMX) the unit will need 13 channels to be correctly programmed.  
 The three new DMX channels are:  
 - DMX channel 11 = SCENES channel  
 From 0-10 = no function ( r001)  
 From 11-255 are displayed the programmable scenes (max 16 scenes from M001 to M0016 )  
 - DMX channel 12 = EDIT channel:  
 From 0-19 = no function  
 From 20-234 the unit runs the configuration given by the received input DMX values.  
 With the channel SCENES it is possible to pass from one step to the next while with REC it is possible to record the selected scene.  
 From 235-255 the unit runs the configuration given by the received input DMX values closing the sequence as last scene.  
 With the channel REC it is possible to record the selected scene as last scene.  
 - DMX channel 13 = RECORDING channel  
 Records the set scene with a variation between 0 to 255 (the display flashes indicating that the scene has been recorded).It is advised that you keep the REC channel set to 0 and to run through the 255 only once you have decided to save the scene. If ChPr is not closed, by indicating the last scene ( Edit channel between 235-255), in playback mode all 16 scenes will be played through even if not programmed



REC

10CH

r001

r001

r002


r0....

r0 16

---

**SLAVE MODE**  
 Slave mode for ChPr program.  
 All slave units will be synchronised with master unit, running their own Chpr program.

**INFRARED MODE**  
 Infrared remote control.  
 By activating Ir MODE, it will be possible to navigate through the unit functions by using the D.T.S. infrared remote control.  
 D.T.S. Code :0514L008



SLAVE

SURE


SLU

ESC

**NOTE:**  
 External infrared remote sensor needed.  
 D.T.S. Code :03.LA.016

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**FAN SPEED CONTROL**  
 Internal Fan Speed control selectable by user.  
 Range: OFF - 24 volt Default : 24 volt




Ir

On

OFF

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**EMERGENCY**  
 Emergency operating mode.  
 By setting Emergency mode, it will be possible to select one of the 16 preprogrammed WHITE cues that will then ran if DMX signal is missing or not available.  
 Useful for Emergency EXIT illumination on public areas.



FAN

12V

OFF

ENE

SEL

On

OFF

White

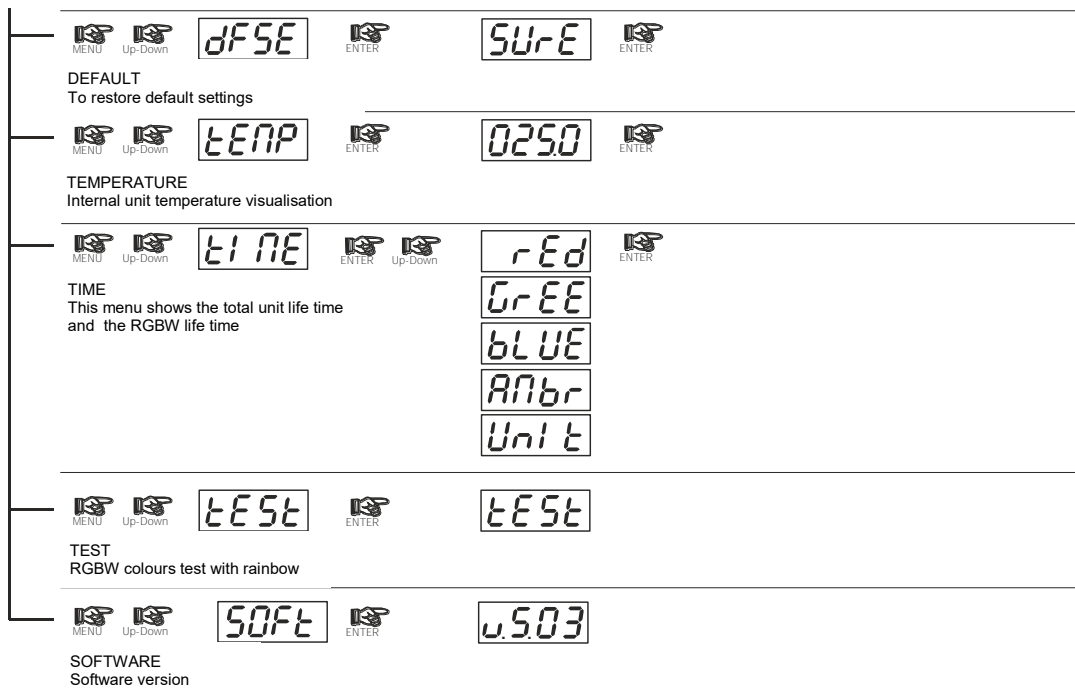
dinn

Default = OFF

Default = White 1

Default = 255

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## **AUTOMATIC OPERATION (AUTO):**

FOS 100 POWER SOLO can work in automatic mode without a DMX controller. First of all connect the projectors with a DMX cable (picture below). A maximum quantity of 32 slave units can be connected to the same Master unit.



To activate Auto mode on the first unit, use the menu to run through the different modes until AUTO appears on the display, and press enter.

Now it is possible to choose between the different pre-programmed games (CUPr-RAIn-CU01/CU16-Wh01/Wh16) or ChPr which is user programmable through REC mode. To confirm game activation press ENTER on the selected GAME.

### **CUPr-RAIn-CU01/CU16-Wh01/Wh16**

The first unit that will work as a Master should be placed in Automatic mode (AUTO), the other units have to be placed 10 channels DMX mode (MODE 10 CH) and the DMX address should be set at A001. For RAIn (rainbow) game it is possible to select the speed for the colour changing (SPEE).

DIMMER function (in AUTOMATIC MODE) is active for all the programs.

SHUTTER function (in AUTOMATIC MODE) is active only for CU01/CU16 and Wh01/Wh16 macros.

### **ChPr MASTER/SLAVE**

The first unit that will function as a Master must be set to Automatic mode (AUTO), the other units must be set to Slave mode (SLAV), selectable through the menu. In this way all the Slave units will be synchronised with the master and running their own ChPr game.

On the master unit it is possible to vary the Speed time (SPEE) for the colour changing and the Wait time (UAlt) between the steps.

Speed time and Wait time on the Master, have priority on the slave units.

NB: It is possible to run GA.Pr on the other units even though these do not have GA.Pr programmed. You can do this by setting the units to 10 channels DMX mode and selecting DMX address A001.

## **REC MODE**

It is possible to program your own game on the FOS 100 POWER SOLO that will then run it in AUTO mode (ChPr).

Each unit can have its own programmed game.

In REC mode the unit must be set to 10 channels mode.

To program the ChPr by using a DMX controller, you need 3 more channels in addition to the 10 channels necessary to control the unit.

So that in RECORDER mode (via DMX) the unit will need 13 DMX channels to be correctly programmed.

The three new DMX channels are:

### **DMX channel 11 = SCENES channel:**

- From 0-24 = no function

- From 25-255 the programmable scenes are displayed (max 16 scenes from M001 to M0016 )

### **DMX channel 12 = EDIT channel:**

- From 0-19 = no function

- From 20-234 the unit runs the configuration given by the received input DMX values.

With the channel SCENES it is possible to pass from one step to the next while with REC it is possible to record the selected scene.

-From 235-255 the unit runs the configuration given by the received input DMX values, closing the sequence as last scene.

With the channel REC it is possible to record the selected scene as last scene.

### **DMX channel 13 = RECORDING channel**

Records the set scene with a variation between 0 to 255 (the display flashes indicating that the scene has been recorded). It is advised that you keep the REC channel set to 0 and to run through the 255 only once you have decided to save the scene. If ChPr is not closed, by indicating the last scene ( Edit channel between 235-255), in playback mode all 16 scenes will be played through, even if not programmed



**13- DMX PROTOCOL****10 CHANNELS MODE**

- 1 SHUTTER
- 2 DIMMER
- 3 RED
- 4 GREEN
- 5 BLUE
- 6 WHITE
- 7 WHITE (Pre-programmed whites at different colour temperatures)
- 8 CTC
- 9 COLOURS MACRO
- 10 FUNCTIONS

DMX CHANNEL		1	Parameter: <b>SHUTTER / STROBE</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-009					Black-out	
010-019					Open	
020-029					Black-out	
030-119					Strobe (from 3.27 s to 30 ms)	
120-149					Pulse up (from 42.6 s to 120 ms)	
150-179					Pulse down (from 42.6 s to 120 ms)	
180-204					Random strobe (Dimmer channel active)	
205-229					Full independent Random Strobe (Dimmer channel disabled)	
230-234					Red, Yellow, Cyan and Blue colour effects at variable speed	
235-255					Open	

DMX CHANNEL		2	Parameter: <b>DIMMER</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-007					Black-out	
008-255					Proportional dimmer	

DMX CHANNEL		3	Parameter: <b>RED</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-255					Proportional colour	

DMX CHANNEL		4	Parameter: <b>GREEN</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-255					Proportional colour	

DMX CHANNEL		5	Parameter: <b>BLUE</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-255					Proportional colour	

DMX CHANNEL		6	Parameter: <b>WHITE</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-255					Proportional colour	

DMX CHANNEL		7	Parameter: <b>WHITE PREPROGRAMMED (White at diff. colour temperature)</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-055	23				No Function	
056-105	80				Full (Red-Green-Blue at Full)	
106-155	130				White DTS	
156-205	180				Custom White Create (RGB levels selectable by DMX)	
206-255	230				White CTC (Channel 15 CTC enabled)	

DMX CHANNEL		8	Parameter: <b>CTC (Colour Temperature Correction)</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-255					Linear control temperature correction. 0 = 2000°K / 255 = 7200°K	

DMX CHANNEL		9	Parameter: <b>COLOURS MACRO STD</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-014					No Function	
015-029					Macro 1	
030-044					Macro 2	
045-059					Macro 3	
060-074					Macro 4	
075-089					Macro 5	
090-104					Macro 6	
105-119					Macro 7	
120-134					Macro 8	
135-149					Macro 9	
150-164					Macro 10	
165-179					Macro 11	
180-194					Macro 12	
195-209					Macro 13	
210-225					Macro 14	
226-239					Macro 15	
240-255					Macro 16	

DMX CHANNEL	9	Parameter: COLOURS MACRO EXT			
000-014					No Function
015-022					Macro 1
023-030					Macro 2
031-038					Macro 3
039-046					Macro 4
047-054					Macro 5
055-062					Macro 6
063-070					Macro 7
071-078					Macro 8
079-086					Macro 9
087-094					Macro 10
095-102					Macro 11
103-110					Macro 12
111-118					Macro 13
119-126					Macro 14
127-134					Macro 15
135-142					Macro 16
143-504					Rainbow Speed 1 (6 Sec.)
151-158					Rainbow Speed 2 (15 Sec.)
159-166					Rainbow Speed 3 (30 Sec.)
167-174					Rainbow Speed 4 (45 Sec.)
175-182					Rainbow Speed 5 (60 Sec.)
283-190					Rainbow Speed 6 (120 Sec.)
191-198					Rainbow Speed 7 (150 Sec.)
199-206					Rainbow Speed 8 (180 Sec.)
207-214					Random Speed 1 (0,5 s)
215-222					Random Speed 2 (1 s)
223-230					Random Speed 3 (2 s)
231-238					Random Speed 4 (5 s)
239-246					Random Speed 5 (10 s)
247-255					Random Speed 6 (30 s)

DMX CHANNEL	10	Parameter: FUNCTIONS (Recall, Create and Store the Custom white)			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
IF CHANNEL 7 WHITE PREPROGRAMMED = DMX range value 156 – 205)					
000-079					Custom White Recall
080-160					Custom White Create (Enable Custom White Creation)
161-255					Custom White Store (Store the Custom White created)

**6 CHANNELS MODE**

- 1 SHUTTER
- 2 DIMMER
- 3 RED
- 4 GREEN
- 5 BLUE
- 6 WHITE

DMX CHANNEL		1	Parameter: SHUTTER / STROBE			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-009					Black-out	
010-019					Open	
020-029					Black-out	
030-119					Strobe (from 3.27 s to 30 ms)	
120-149					Pulse up (from 42.6 s to 120 ms)	
150-179					Pulse down (from 42.6 s to 120 ms)	
180-204					Random strobe (Dimmer channel active)	
205-229					Full independent Random Strobe (Dimmer channel disabled)	
230-234					Red, Yellow, Cyan and Blue colour effects at variable speed	
235-255					Open	

DMX CHANNEL		2	Parameter: DIMMER			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-007					Black-out	
008-255					Proportional dimmer	

DMX CHANNEL		3	Parameter: RED			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-255					Proportional colour	

DMX CHANNEL		4	Parameter: GREEN			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-255					Proportional colour	

DMX CHANNEL		5	Parameter: BLUE			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-255					Proportional colour	

DMX CHANNEL		6	Parameter: WHITE			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function	
000-255					Proportional colour	

**WALL MODE**

- 1 GREEN
- 2 RED
- 3 BLUE
- 4 DIMMER
- 5 NOT USED
- 6 SHUTTER

DMX CHANNEL	1	Parameter: <b>GREEN</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Proportional colour

DMX CHANNEL	2	Parameter: <b>RED</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Proportional colour

DMX CHANNEL	3	Parameter: <b>BLUE</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Proportional colour

DMX CHANNEL	4	Parameter: <b>DIMMER</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Proportional dimmer

DMX CHANNEL	5	Parameter: <b>NOT USED</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Unused

DMX CHANNEL	6	Parameter: <b>SHUTTER / STROBE</b>			
DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-009					Black-out
010-019					Open
020-029					Black-out
030-119					Strobe (from 3.27 s to 30 ms)
120-149					Pulse up (from 42.6 s to 120 ms)
150-179					Pulse down (from 42.6 s to 120 ms)
180-204					Random strobe (Dimmer channel active)
205-229					Full independent Random Strobe (Dimmer channel disabled)
230-234					Red, Yellow, Cyan and Blue colour effects at variable speed
235-255					Open

**5 CHANNELS MODE (M4CH)**

- 1 **DIMMER**
- 2 **RED**
- 3 **GREEN**
- 4 **BLUE**
- 5 **WHITE**

DMX CHANNEL	1	Parameter: <b>DIMMER</b>			
<b>DMX range Value</b>	<b>Mid Point DMX value</b>	<b>Move Range (degrees)</b>	<b>Mode</b>	<b>Option</b>	<b>Function</b>
000-255					Proportional dimmer

DMX CHANNEL	2	Parameter: <b>RED</b>			
<b>DMX range Value</b>	<b>Mid Point DMX value</b>	<b>Move Range (degrees)</b>	<b>Mode</b>	<b>Option</b>	<b>Function</b>
000-255					Proportional colour

DMX CHANNEL	3	Parameter: <b>GREEN</b>			
<b>DMX range Value</b>	<b>Mid Point DMX value</b>	<b>Move Range (degrees)</b>	<b>Mode</b>	<b>Option</b>	<b>Function</b>
000-255					Proportional colour

DMX CHANNEL	4	Parameter: <b>BLUE</b>			
<b>DMX range Value</b>	<b>Mid Point DMX value</b>	<b>Move Range (degrees)</b>	<b>Mode</b>	<b>Option</b>	<b>Function</b>
000-255					Proportional colour

DMX CHANNEL	5	Parameter: <b>WHITE</b>			
<b>DMX range Value</b>	<b>Mid Point DMX value</b>	<b>Move Range (degrees)</b>	<b>Mode</b>	<b>Option</b>	<b>Function</b>
000-255					Proportional colour

**4 CHANNELS MODE (RGBW)**

- 1 **RED**
- 2 **GREEN**
- 3 **BLUE**
- 4 **WHITE**

DMX CHANNEL	1	Parameter: <b>RED</b>			
<b>DMX range Value</b>	<b>Mid Point DMX value</b>	<b>Move Range (degrees)</b>	<b>Mode</b>	<b>Option</b>	<b>Function</b>
000-255					<b>Proportional colour</b>

DMX CHANNEL	2	Parameter: <b>GREEN</b>			
<b>DMX range Value</b>	<b>Mid Point DMX value</b>	<b>Move Range (degrees)</b>	<b>Mode</b>	<b>Option</b>	<b>Function</b>
000-255					<b>Proportional colour</b>

DMX CHANNEL	3	Parameter: <b>BLUE</b>			
<b>DMX range Value</b>	<b>Mid Point DMX value</b>	<b>Move Range (degrees)</b>	<b>Mode</b>	<b>Option</b>	<b>Function</b>
000-255					<b>Proportional colour</b>

DMX CHANNEL	4	Parameter: <b>WHITE</b>			
<b>DMX range Value</b>	<b>Mid Point DMX value</b>	<b>Move Range (degrees)</b>	<b>Mode</b>	<b>Option</b>	<b>Function</b>
000-255					<b>Proportional colour</b>

**1 CHANNEL MODE (1CH)**

- 1 **DIMMER**

DMX CHANNEL	1	Parameter: <b>DIMMER</b>			
<b>DMX range Value</b>	<b>Mid Point DMX value</b>	<b>Move Range (degrees)</b>	<b>Mode</b>	<b>Option</b>	<b>Function</b>
000-255					<b>Proportional dimmer</b>

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