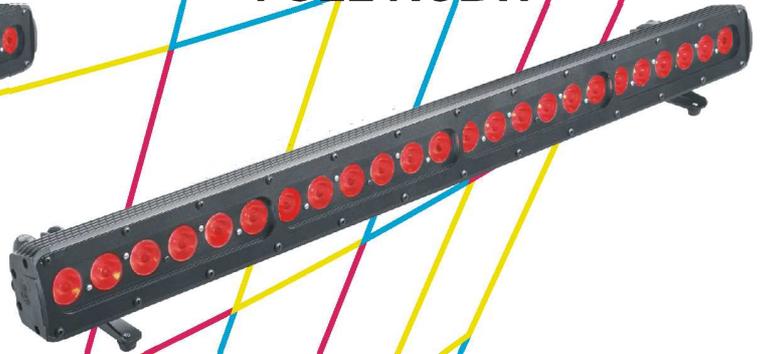


# FOS 100 POWER SOLO FOS 100 POWER

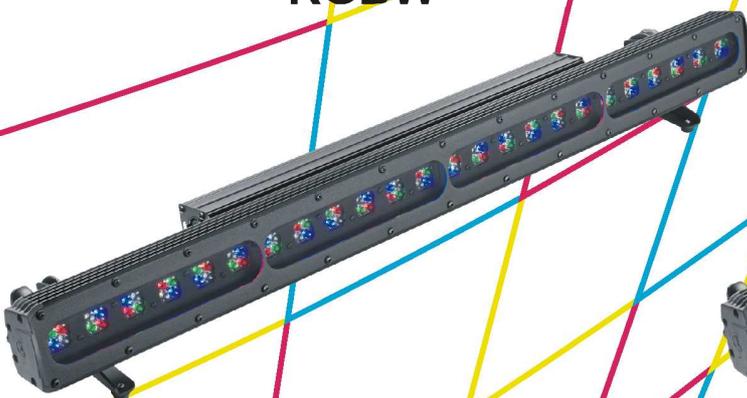
FOS 100 POWER SOLO  
FULL RGBW



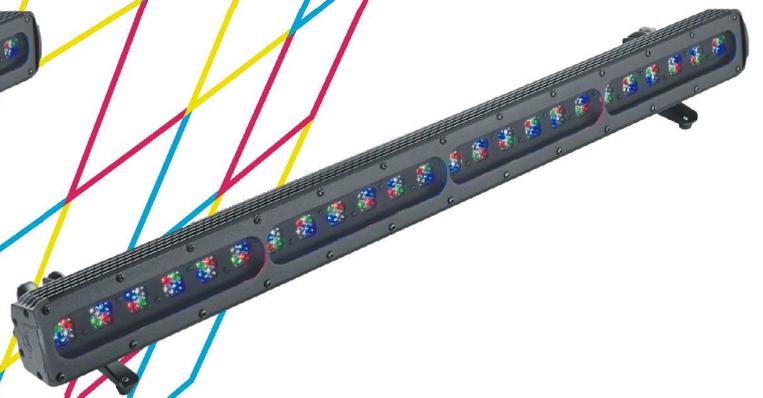
FOS 100 POWER  
FULL RGBW



FOS 100 POWER SOLO  
RGBW



FOS 100 POWER RGBW



User's Manual rel 1.2 **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 “DO NOT PLACE THE UNIT ON INFLAMMABLE SURFACES”**



**THIS SYMBOL INDICATES THE MINIMUM DISTANCE TO BE KEPT BETWEEN THE DEVICE AND THE LIT OBJECT**

## **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 device is not for domestic use and must be installed by a qualified electrician or experienced person.

Always disconnect the device from the mains before maintenance.

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**

### **OVERVIEW**

FOS 100 POWER is the most powerful model in the FOS line of compact LED bars, designed for lighting and colouring large surfaces with a homogeneous projection. FOS 100 POWER is ideal in a variety of applications, either indoor or outdoor, such as: lighting building facades, monuments, public and commercial spaces; creating uniform background colours and cycloramas, etc.

FOS 100 POWER is available in two versions.

FOS 100 POWER FULL COLOUR: 24 x Full Colour (RGBW) LEDs;

FOS 100 POWER RGBW: 96 x RGBW LEDs.

Three dedicated lenses sets (Spot, Medium flood, Wide flood) are available for each model.

### **LED Technology**

FOS 100 POWER FULL COLOUR:

24 x Full Colour (RGBW) LEDs; 7.028 Lux at 3 m;

16 million colours; linear colour temperature 2800°K – 6500°K

FOS 100 POWER RGBW:

96 x RGBW LEDs (24 x Red, 24 x Green, 24 x Blue, 24 x White); 10.528 Lux at 3 m;

16 million colours; linear colour temperature 2800°K – 6500°K

No infrared emission; no ultraviolet emission

LEDs average lifespan: 100.000 hours

### **Optical group**

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

### **Control**

Via any DMX lighting console (FOS 100 POWER SOLO)

### **Protection**

IP65 protection level against the penetration of solids and liquids

### **Construction**

FOS units are made on aluminium and steel

### **Connections**

M16 male connector + cable (length 30 cm) connection system between Power supply and LED bar (All versions).

POWERCON + XLR 5 poles cable connectors (FOS 100 POWER SOLO IP20);

HARTING 5 poles cable connector (FOS 100 POWER SOLO IP65)

### **Power supply**

Electronic full range power supply AC 90-260V 50 / 60 Hz

Integrated power supply / LED controller (FOS 100 POWER SOLO)

(Z10 POWER IP20 or Z10 POWER IP65);

External dedicated Z40 power supply / LED controller (FOS 100 POWER)

**Product codes:**

<b><u>03.LB030S.26.FW10</u></b>	<b><u>FOS 100 POWER SOLO IP20 FULLWHITE NARROW GREY SILVER</u></b>
<b><u>03.LB030S.26.FW25</u></b>	<b><u>FOS 100 POWER SOLO IP20 FULLWHITE MEDIUM GREY SILVER</u></b>
<b><u>03.LB030S.26.FW40</u></b>	<b><u>FOS 100 POWER SOLO IP20 FULLWHITE WIDE GREY SILVER</u></b>
<b><u>03.LB030S.FW10</u></b>	<b><u>FOS 100 POWER SOLO IP20 FULLWHITE NARROW BLACK</u></b>
<b><u>03.LB030S.FW25</u></b>	<b><u>FOS 100 POWER SOLO IP20 FULLWHITE MEDIUM BLACK</u></b>
<b><u>03.LB030S.FW40</u></b>	<b><u>FOS 100 POWER SOLO IP20 FULLWHITE WIDE BLACK</u></b>
<b><u>03.LB030S.F10</u></b>	<b><u>FOS 100 POWER SOLO IP20 FULLRGBW NARROW BLACK</u></b>
<b><u>03.LB030S.F25</u></b>	<b><u>FOS 100 POWER SOLO IP20 FULLRGBW MEDIUM BLACK</u></b>
<b><u>03.LB030S.F40</u></b>	<b><u>FOS 100 POWER SOLO IP20 FULLRGBW WIDE BLACK</u></b>
<b><u>03.LB030S.T10</u></b>	<b><u>FOS 100 POWER SOLO IP20 RGBW NARROW BLACK</u></b>
<b><u>03.LB030S.T25</u></b>	<b><u>FOS 100 POWER SOLO IP20 RGBW MEDIUM BLACK</u></b>
<b><u>03.LB030S.T40</u></b>	<b><u>FOS 100 POWER SOLO IP20 RGBW WIDE BLACK</u></b>
<b><u>03.LB031S.26.FW10</u></b>	<b><u>FOS 100 POWER SOLO IP65 FULLWHITE NARROW GREY SILVER</u></b>
<b><u>03.LB031S.26.FW25</u></b>	<b><u>FOS 100 POWER SOLO IP65 FULLWHITE MEDIUM GREY SILVER</u></b>
<b><u>03.LB031S.26.FW40</u></b>	<b><u>FOS 100 POWER SOLO IP65 FULLWHITE WIDE GREY SILVER</u></b>
<b><u>03.LB031S.FW10</u></b>	<b><u>FOS 100 POWER SOLO IP65 FULLWHITE NARROW BLACK</u></b>
<b><u>03.LB031S.FW25</u></b>	<b><u>FOS 100 POWER SOLO IP65 FULLWHITE MEDIUM BLACK</u></b>
<b><u>03.LB031S.FW40</u></b>	<b><u>FOS 100 POWER SOLO IP65 FULLWHITE WIDE BLACK</u></b>
<b><u>03.LB031S.F10</u></b>	<b><u>FOS 100 POWER SOLO IP65 FULLRGBW NARROW BLACK</u></b>
<b><u>03.LB031S.F25</u></b>	<b><u>FOS 100 POWER SOLO IP65 FULLRGBW MEDIUM BLACK</u></b>
<b><u>03.LB031S.F40</u></b>	<b><u>FOS 100 POWER SOLO IP65 FULLRGBW WIDE BLACK</u></b>
<b><u>03.LB031S.T10</u></b>	<b><u>FOS 100 POWER SOLO IP65 RGBW NARROW BLACK</u></b>
<b><u>03.LB031S.T25</u></b>	<b><u>FOS 100 POWER SOLO IP65 RGBW MEDIUM BLACK</u></b>
<b><u>03.LB031S.T40</u></b>	<b><u>FOS 100 POWER SOLO IP65 RGBW WIDE BLACK</u></b>
<b><u>03.LB031.26.FW10</u></b>	<b><u>FOS 100 POWER IP65 FULLWHITE NARROW GREY SILVER</u></b>
<b><u>03.LB031.26.FW25</u></b>	<b><u>FOS 100 POWER IP65 FULLWHITE MEDIUM GREY SILVER</u></b>
<b><u>03.LB031.26.FW40</u></b>	<b><u>FOS 100 POWER IP65 FULLWHITE WIDE GREY SILVER</u></b>
<b><u>03.LB031.FW10</u></b>	<b><u>FOS 100 POWER IP65 FULLWHITE NARROW BLACK</u></b>
<b><u>03.LB031.FW25</u></b>	<b><u>FOS 100 POWER IP65 FULLWHITE MEDIUM BLACK</u></b>
<b><u>03.LB031.FW40</u></b>	<b><u>FOS 100 POWER IP65 FULLWHITE WIDE BLACK</u></b>
<b><u>03.LB031.F10</u></b>	<b><u>FOS 100 POWER IP65 FULLRGBW NARROW BLACK</u></b>
<b><u>03.LB031.F25</u></b>	<b><u>FOS 100 POWER IP65 FULLRGBW MEDIUM BLACK</u></b>
<b><u>03.LB031.F40</u></b>	<b><u>FOS 100 POWER IP65 FULLRGBW WIDE BLACK</u></b>
<b><u>03.LB031.T10</u></b>	<b><u>FOS 100 POWER IP65 RGBW NARROW BLACK</u></b>
<b><u>03.LB031.T25</u></b>	<b><u>FOS 100 POWER IP65 RGBW MEDIUM BLACK</u></b>
<b><u>03.LB031.T40</u></b>	<b><u>FOS 100 POWER IP65 RGBW WIDE BLACK</u></b>

**5- MAIN ELECTRICAL CHARACTERISTICS (FOS 100 POWER SOLO)**

Input Voltage Range : Vin 90 - 260 Vac

Frequency : 50 / 60 Hz

Power Consumption Range : 10 - 200 W

Power Factor (Pf) : 0.95 electronic PFC controller

Efficiency : 90% typical

**Control Input:**

Control Signal : DMX 512

Dimming System : Constant Current PWM

Address Range : DMX 512 channels addressable by display

## **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)

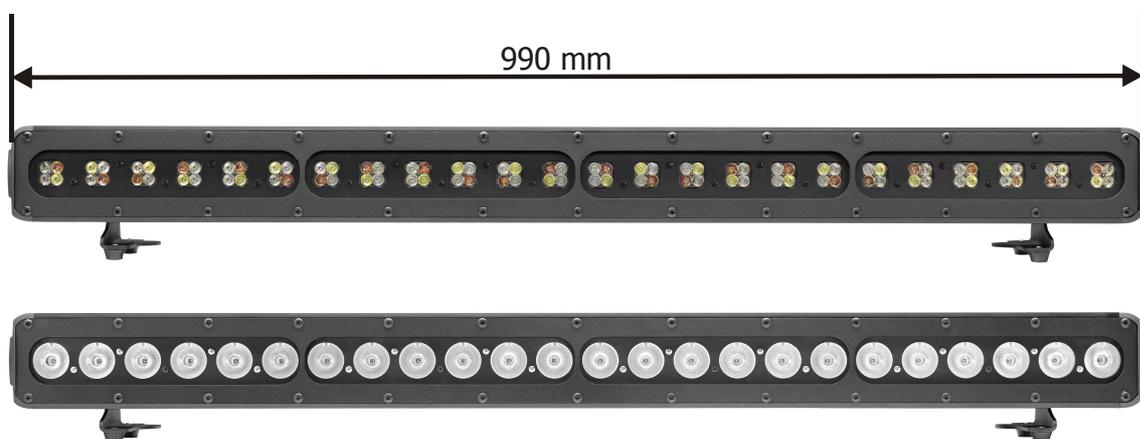
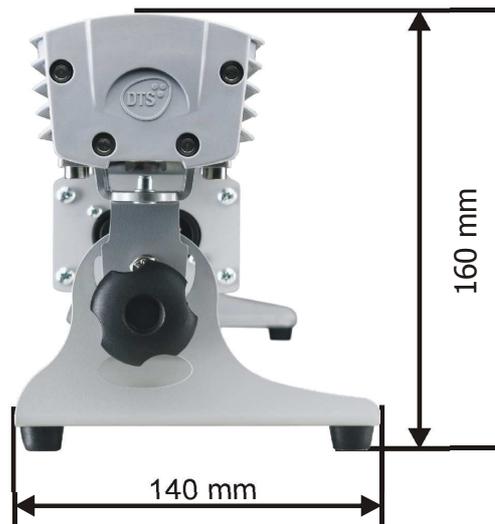
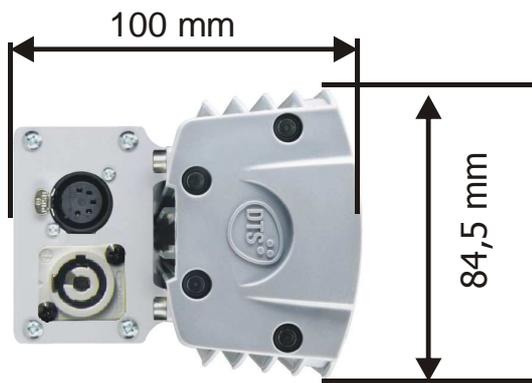
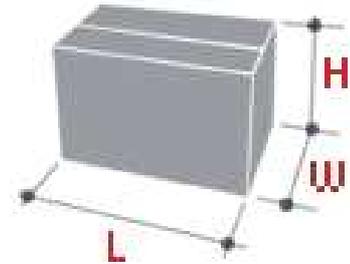
**DIMENSIONS****FOS 100 POWER SOLO**

Unit Dimensions  
(LxWxH)  
990 x 100 x 84,5 mm

Packing Dimensions  
(LxWxH)  
1060 x 160 x 200 mm

Weight  
7 Kg

Weight  
8,5 Kg



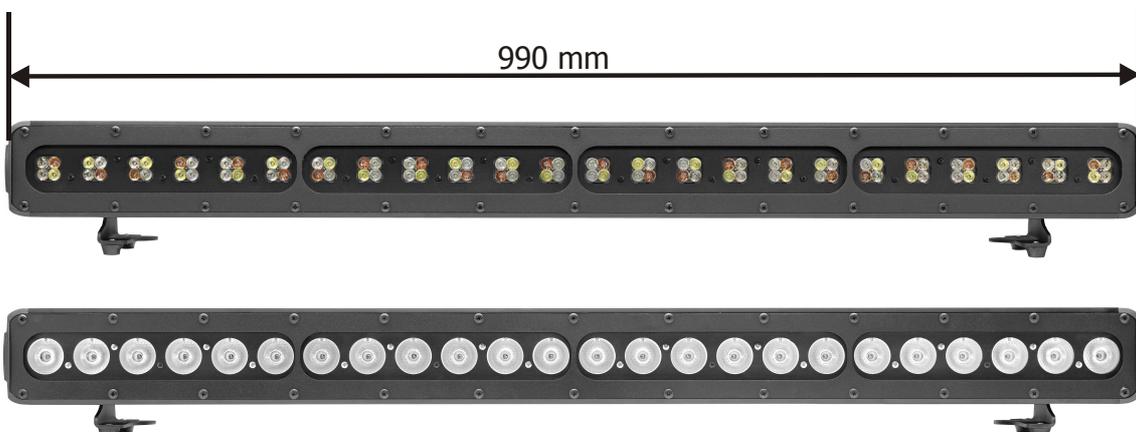
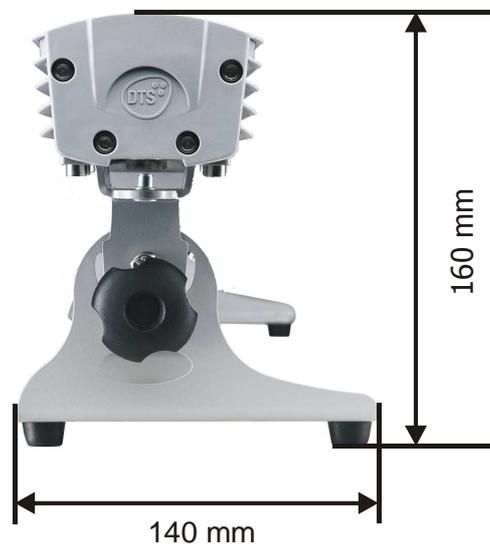
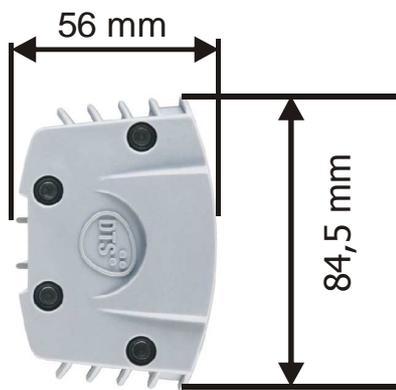
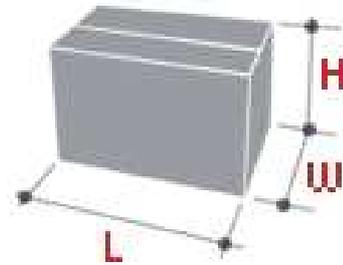
**FOS 100 POWER**

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:**

Never locate the fixture on any flammable surface.

Minimum distance from flammable materials: 10 cm.



Minimum distance from the closest illuminable surface: 10 cm. (10cm)

### **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.



## 8- INPUT / OUTPUT CONNECTIONS

### FOS 100 POWER SOLO (IP20)



M16 LED output  
Female panel connector

DMX IN/OUT  
XLR 5 pins Male / Female  
Panel Connectors

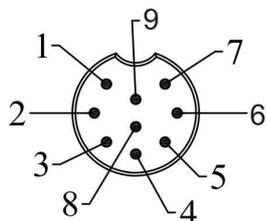


M16 LED input  
Male cable connector

Mains 90-260 V AC  
50-60 Hz input Powercon  
Female panel connector

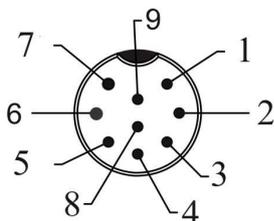
Mains 90-260 V AC  
50-60 Hz output Powercon  
Female panel connector  
MAX load:  
230 V AC = 10 FOS 100 POWER SOLO  
100 V AC = 5 FOS 100 POWER SOLO

M16 Female  
panel connector



Front View

M16 Male  
cable connector



Front View

### LED OUTPUTS

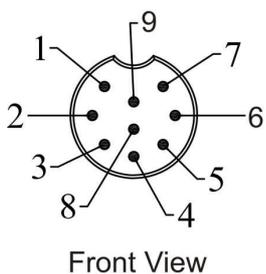
WIRES SEQUENCE COLOURS	PIN OUT
PIN 1 - BLUE	PIN 1: RED +
PIN 2 - GREEN	PIN 2: GREEN +
PIN 3 - YELLOW	PIN 3: BLUE +
PIN 4 - ORANGE	PIN 4: WHITE +
PIN 5 - RED	PIN 5: COMMON
PIN 6 - BROWN	PIN 6: (RED -)
PIN 7 - BLACK	PIN 7: (GREEN -)
PIN 8 - GREY	PIN 8: (BLUE -)
PIN 9 - WHITE	PIN 9: (WHITE -)
	PIN 8: NTC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

**FOS 100 POWER (IP65)**

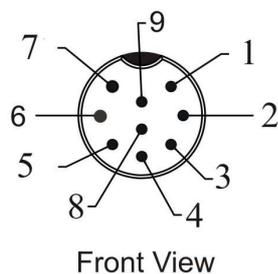


M16 LED input  
Male cable connector

M16 Female  
panel connector



M16 Male  
cable connector



**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 )

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

The unit operates using a digital DMX 512 signal.

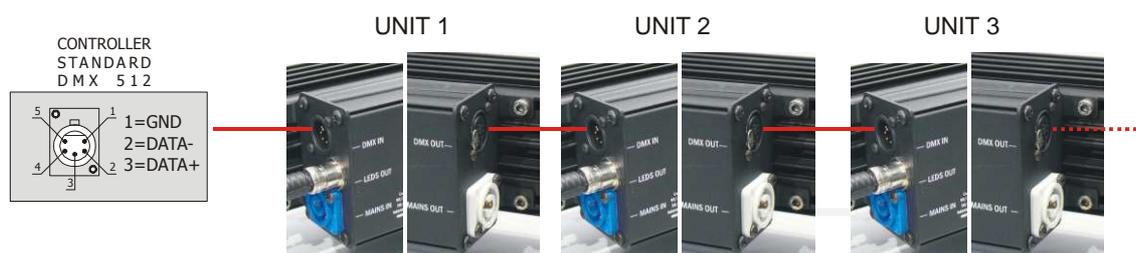
Connection between the controller and the unit or between units must be carried out using a two pair screened  $\varnothing$  0.5 mm.

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.



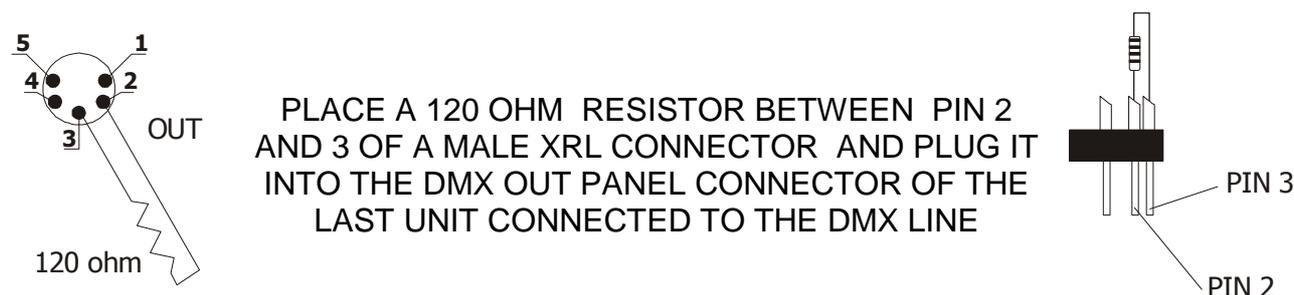
If the display showing the DMX address flashes, then one of the following errors has occurred:

- 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.



## **9.1 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	

## **9.2 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.

## **10- 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.

(The driver and the installation procedure are available in our web site

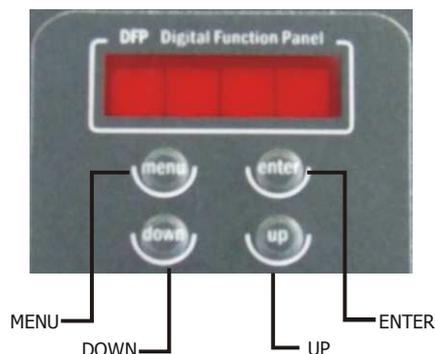
[www.dts-lighting.it](http://www.dts-lighting.it))

### **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.

## 11- 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 4.0.7

 MENU  Up-Down	 ENTER  Up-Down	 ENTER  Up-Down	 ENTER
ADD 1	DISP	POS 1	RR
<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>			<p>Floor Position</p> <p>Suspension Position</p> <p>Display OFF</p> <p>Display Always ON</p>
 MENU  Up-Down	 ENTER  Up-Down	 ENTER  Up-Down	 ENTER
 Up-Down	 Up-Down	 Up-Down	 ENTER
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
 Up-Down	 Up-Down	 ENTER	
node	10CH	10 CHANNELS	Default DMX Mode = 10 CH
	UALL	6 CHANNELS	
	1CH	1 CHANNEL	
	rGBA	RGBA(4 CHANNELS)	
	6CH	6 CHANNELS	
	M4CH	M4CH(5 CHANNELS)	Dimmer + RGBA
	CUST		
	SEL		Custom mode enabled
	ShoU		Show Custom settings
	SEt		Parameters Setting on Custom Mode
	AUX	AUX MODE	External ON – OFF control on IR connector
	MACr		Standard mode enabled (Default)
	EXT		Extended mode enabled: Rainbow effects on MACRO channel

MENU  Up-Down	LED	ENTER  Up-Down	rEd	ENTER  Up-Down	01 n	Default=0	ENTER
<p>LED RGBA Min/Max, Smooth and Compression levels values settings</p>							
<p>RGBA MINIMUM VALUES This menu allow to select the minimum levels for Red, Green, Blue and</p>							
<p>RGBA MAXIMUM VALUES This menu allow to select the maximum levels for</p>							
<p>These settings have priority on Master Dimmer</p>							
<p>SMOOTH VALUE This menu allow to select the value of the delay ( in milliseconds) for RGB and Dimmer channels reaction to DMX or Program variation. Off=25 ms delay (Fast response) 20=250 ms delay (Slow response)</p>							
<p>COMPRESSION This menu allow to select between Linear current output or Quadratic current output for LEDs Default = Linear</p>							
<p>BOOST DRIVING This menu allow to increase the LED's current from 350mA to 500 mA</p>							
		Up-Down 	GrEE	ENTER  Up-Down	01 n	Default=0	ENTER
		Up-Down 	BLUE	ENTER  Up-Down	01 n	Default=100	ENTER
		Up-Down 			01 n	Default=100	ENTER
		Up-Down 	5nE4	ENTER  Up-Down	4	Range = Off-20 Default = 4	ENTER
						Off = 25 ms Instant response to DMX variation 20 = 250 ms Smooth response to DMX variation	
		Up-Down 	COmp	ENTER  Up-Down	LI nE	Linear=Linear current output	ENTER
		Up-Down 	54nc	ENTER  Up-Down	610	Range = 610 Hz -10 KHz Default = 610	ENTER
		Up-Down 	b5t	ENTER  Up-Down  Up-Down	0n	Boost mode activated	ENTER
					OFF	Boost mode deactivated	ENTER
						With BOOST active, the LED's current is set to 500mA (30%more gain). Default = Activated	

MENU Up-Down **AUTO** ENTER **SURE** ENTER Up-Down **ChPr** ENTER **SPEE** Up-Down **00 10** ENTER

**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** ENTER **rEd** Up-Down **120** ENTER

**GrEE** **255**

**BLUE** **104**

**ANbr** **0**

**CUPr**  
RGB values selectable by  
user

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

**rAn** ENTER **SPEE** Up-Down **00 10** ENTER

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

**CU01** ENTER Up-Down ENTER

**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

**WH01** ENTER Up-Down ENTER

**WH02**

**WH03**

**WH04**

**WH05**

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

**WH.....**

**WH 16**

**ESC**  
Esc from Automatic Mode  
Menu

**dl nn** ENTER Up-Down **255** ENTER

**SHUT** ENTER Up-Down **255** ENTER

**ESC**



**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 setted 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.

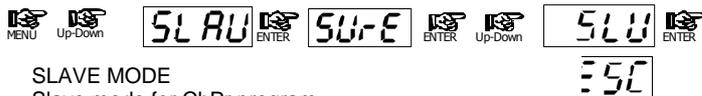
With the channel SCENES it is possible to pass from one step to the next while with REC it is possible to record the selected scene.

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



**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

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



**FAN SPEED CONTROL**

Internal Fan Speed control selectable by user.

Range: OFF - 24 volt Default : 24 volt



**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.



Default = OFF

Default = White 1

Default = 255

## **12 - SERVICE MENU**

### **For technical personnel only**

#### **To operate this menu:**

**-Connect the unit to the main**

**-While reset is running, press the MENU and ENTER keys at the same time.**

**ChAn**

#### **CHANNELS**

This menu allow to set 3 channels or 4 channels LEDs output mode  
3 LEDs channels output mode = Not Used on FOS 100 POWER SOLO  
4 LEDs channels output mode = Default

**PrOd**

#### **PRODUCT MODEL SELECTION:**

- FOS 100 POWER = Default
- TITAN PLUS = only for TITAN PLUS unit
- DELTA 8= only for DELTA 8 unit

**ESC**

#### **EXIT**

Exit from hidden menu.

### **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: 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: <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
<b>IF CHANNEL 7 WHITE PREPROGRAMMED = DMX range value 156 – 205)</b>					
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: <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	

**WALL MODE**

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

DMX CHANNEL	1	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	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>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	4	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	5	Parameter: <b>NOT USED</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					Unused

DMX CHANNEL	6	Parameter: <b>SHUTTER / STROBE</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>
000-009					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					<b>Proportional dimmer</b>

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					<b>Proportional colour</b>

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					<b>Proportional colour</b>

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					<b>Proportional colour</b>

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					<b>Proportional colour</b>

**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>

**NOTES**

**NOTES**

**NOTES**

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**The Lighting Company**

**ISO 9001:2008**

D.T.S. quality system  
is certified to the  
ISO 9001:2008 standard



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and manufactured at the D.T.S.  
plants in Italy



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