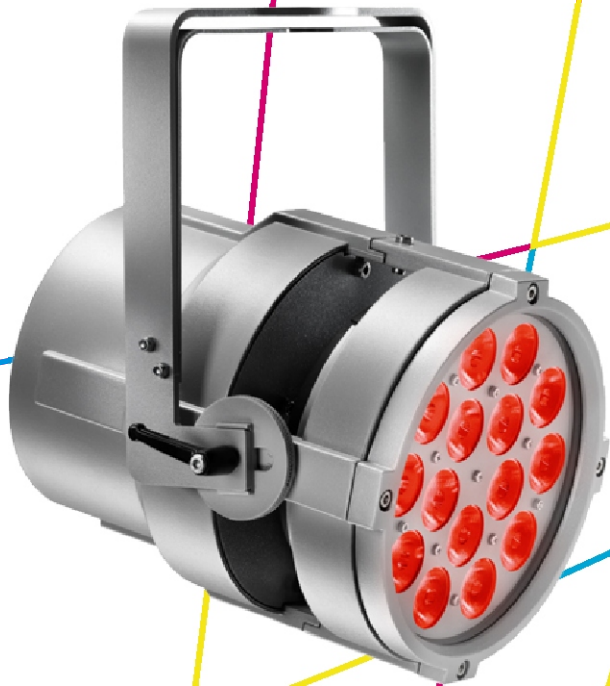


TITAN PLUS SOLO



User's Manual rel 2.1 **GB**

D.T.S. Illuminazione srl - ITALY
<http://www.dts-lighting.it>



The Lighting Company

Made in Italy

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DESCRIPTION

TITAN PLUS SOLO is a new range of compact self-contained LED projectors designed for fixed and mobile installations either indoor or outdoor.

All models are made on aluminium offering high resistance to mechanical stress, and IP20 or IP65 protection rating.

TITAN PLUS SOLO range features an integrated power supply and is therefore extremely easy to set up and use.

2 integrated power supply with different protection rating are available: IP20 (Powercon + XLR connectors) and IP65 (3 x 1.5 sq mm Main AC cable 1 meter length + XLR Male / Female cable connectors 1 meter cable length).

TITAN PLUS is also available without integrated power supply.

Three dedicated lenses sets (Spot, Medium flood, Wide flood) are available for each model, offering different light beam projection angles with even coverage of lighted areas.

TITAN PLUS SOLO can be controlled via any DMX lighting console.

TITAN PLUS range comprises 3 models, which employ different sets of LEDs tailored for distinct applications: TITAN PLUS SOLO FULL COLOUR, TITAN PLUS SOLO RGBA and TITAN PLUS SOLO WHITE.

TITAN PLUS SOLO FULL COLOUR: 15 x 3W Full Colour LEDs; 16 million colours; 1600 Lux at 3 m (spot lenses); linear colour temperature 2800°K ÷ 6500°K; 16 selectable types of White.

The 15 Full Colour LEDs all generate the same colour at the same time, so that the illuminated object is not only uniformly lit, but also projects no false shadows.

TITAN PLUS SOLO RGBA: 54 x 1W P4 LEDs (12 x Red, 15 x Green, 15 x Blue, 12 x Amber); 16 million colours; 4446 Lux at 3 m (spot lenses); linear colour temperature 2800°K ÷ 6500°K; 16 selectable types of White. The LEDs distribution pattern guarantees high mixing quality for RGBA colours and a uniform projection on surfaces, no matter what colour is used.

TITAN PLUS SOLO WHITE: 54 x 1W P4 LEDs (42 x White, 12 x Amber); 5292 Lux at 3 m (spot lenses); linear colour temperature 2800°K ÷ 6500°K; 16 selectable types of White.

TITAN PLUS SOLO WHITE is ideal in various applications where colour is not needed and white light must have well defined features.

Full Colour LEDs Power supply on board

03.LDB030S.F10	TITAN PLUS SOLO IP20 FULLCOLOUR SPOT LENSES
03.LDB030S.F25	TITAN PLUS SOLO IP20 FULLCOLOUR MEDIUM FLOOD LENSES
03.LDB030S.F40	TITAN PLUS SOLO IP20 FULLCOLOUR WIDE FLOOD LENSES
03.LDB036C.F10	TITAN PLUS SOLO C IP65 FULLCOLOUR SPOT LENSES
03.LDB036C.F25	TITAN PLUS SOLO C IP65 FULLCOLOUR MEDIUM FLOOD LENSES
03.LDB036C.F40	TITAN PLUS SOLO C IP65 FULLCOLOUR WIDE FLOOD LENSES

Red/Green/Blue/Amber LEDs Power supply on board

03.LDB030S.T10	TITAN PLUS SOLO IP20 RGBA SPOT LENSES
03.LDB030S.T25	TITAN PLUS SOLO IP20 RGBA MEDIUM FLOOD LENSES
03.LDB030S.T40	TITAN PLUS SOLO IP20 RGBA WIDE FLOOD LENSES
03.LDB036C.T10	TITAN PLUS SOLO C IP65 RGBA SPOT LENSES
03.LDB036C.T25	TITAN PLUS SOLO C IP65 RGBA MEDIUM FLOOD LENSES
03.LDB036C.T40	TITAN PLUS SOLO C IP65 RGBA WIDE FLOOD LENSES

3 X White/Amber LEDs Power supply on board

03.LDB030S.W10	TITAN PLUS SOLO IP20 WHITE SPOT LENSES
03.LDB030S.W25	TITAN PLUS SOLO IP20 WHITE MEDIUM FLOOD LENSES
03.LDB030S.W40	TITAN PLUS SOLO IP20 WHITE WIDE FLOOD LENSES
03.LDB036C.W10	TITAN PLUS SOLO C IP65 WHITE SPOT LENSES
03.LDB036C.W25	TITAN PLUS SOLO C IP65 WHITE MEDIUM FLOOD LENSES
03.LDB036C.W40	TITAN PLUS SOLO C IP65 WHITE WIDE FLOOD LENSES

LED technology

TITAN PLUS SOLO FULL COLOUR: 15 x Full Colour LEDs; 1600 Lux / 3 m (spot lenses)

TITAN PLUS SOLO RGBA: 54 x 1W P4 LEDs (12 x Red, 15 x Green, 15 x Blue, 12 x Amber; 4446 Lux / 3 m (spot lenses)

TITAN PLUS SOLO WHITE: 54 x 1W P4 LEDs (42 x White, 12 x Amber) 5292 Lux / 3 m (spot lenses)

Variable colour temperature: 2.800°K+6.500°K

No infrared emission; no ultraviolet emission

LEDs average lifespan: 100.000 hours

Optical units

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

Control

Via any DMX lighting console

Protection

IP20 or IP65 protection level against the penetration of solids and liquids

Construction

TITAN PLUS SOLO is made on aluminium

Power supply

Internal power supply

Connection

M12 connection system between head and power supply (TITAN PLUS SOLO IP20 / TITAN PLUS SOLO IP65)

Powercon + XLR panel connectors (TITAN PLUS SOLO IP20)

3 x 1.5 sq mm Main AC cable 1 meter length + XLR Male / Female cable connectors 1 meter cable length (TITAN PLUS SOLO IP65)

ACCESSORIES

Lenses set Spot (TITAN PLUS SOLO FULL COLOUR) (Cod. 03.LK.035)

Lenses set Medium flood (TITAN PLUS SOLO FULL COLOUR) (Cod. 03.LK.036)

Lenses set Wide flood (TITAN PLUS SOLO FULL COLOUR) (Cod. 03.LK.037)

Lenses set Spot (TITAN PLUS SOLO RGBA / WHITE) (Cod. 03.LK.038)

Lenses set Medium flood (TITAN PLUS SOLO RGBA / WHITE) (Cod. 03.LK.039)

Lenses set Wide flood (TITAN PLUS SOLO RGBA / WHITE) (Cod. 03.LK.040)

4x2xAWG24 multipolar black outdoor cable (Cod. 0509C062)

M12 female (8 poles) cable connector (Cod. 0520P050)

M12 male (8 poles) cable connector (Cod. 0520P051)

MAIN ELECTRICAL CHARACTERISTICS:

Input Voltage Range : V_{in} 90 - 260 Vac

Frequency : 50 - 60 HZ

Power Consumption Range : 6 - 100 W

Power Factor (Pf) : 0.95 electronic PFC controller

Efficiency : 90% typical

Output:

Power Output Range : 4 channels output 1,5 - 25W per channel

Output Current : 350 mA @ 100% per channel (500mA @ 100% per channel in BOOST Mode)

Output Voltage : V_{out} 48V

Control Input:

Control Signal : DMX 512

Dimming System : Constant Current PWM

Address Range : DMX 512 channels addressable by display

IMPORTANT SAFETY INFORMATION**Fire prevention:**

Never locate the fixture on any flammable surface.
 Minimum distance from flammable materials: 10 cm
 Replace any blown or damaged fuses only with those of identical value

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 TITAN PLUS SOLO unit.
 Use only AC supplies 90-260V, 50-60Hz
 TITAN PLUS 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.

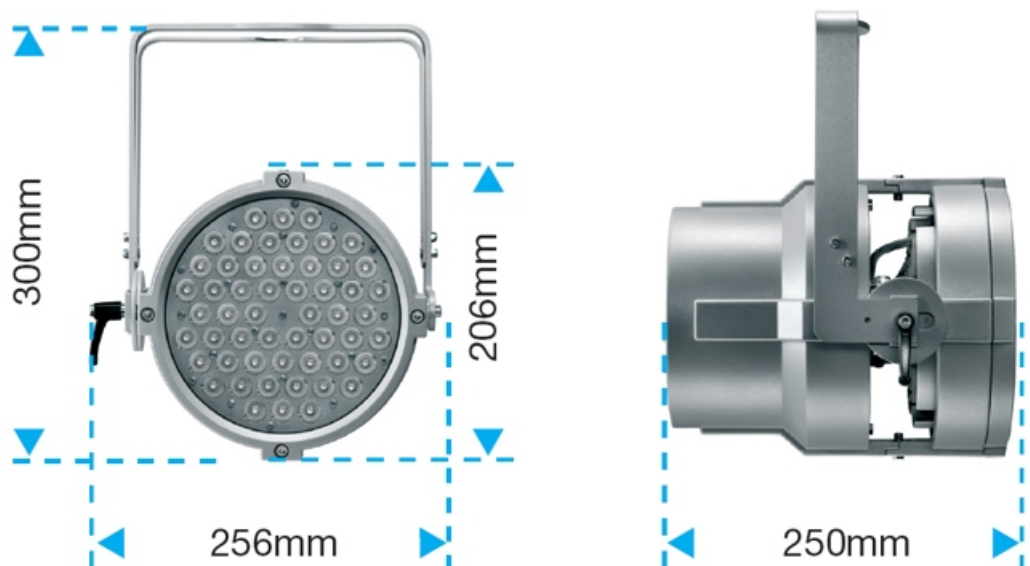
Safety:

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

UNIT DIMENSIONS:

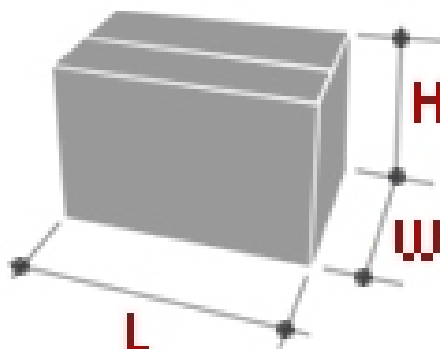
Unit Dimensions
 (LxWxH)
 250 x 256 x 206 mm

Weight
 6,3 Kg



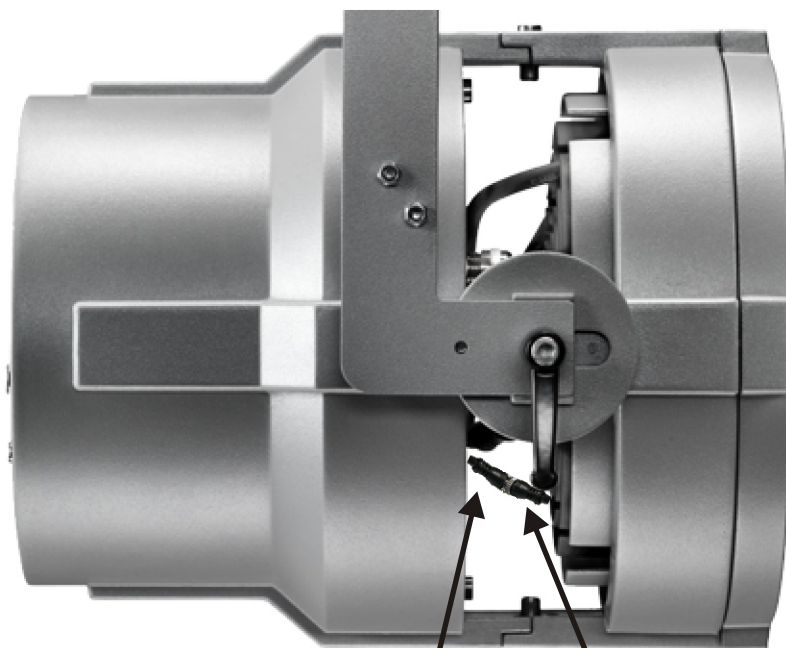
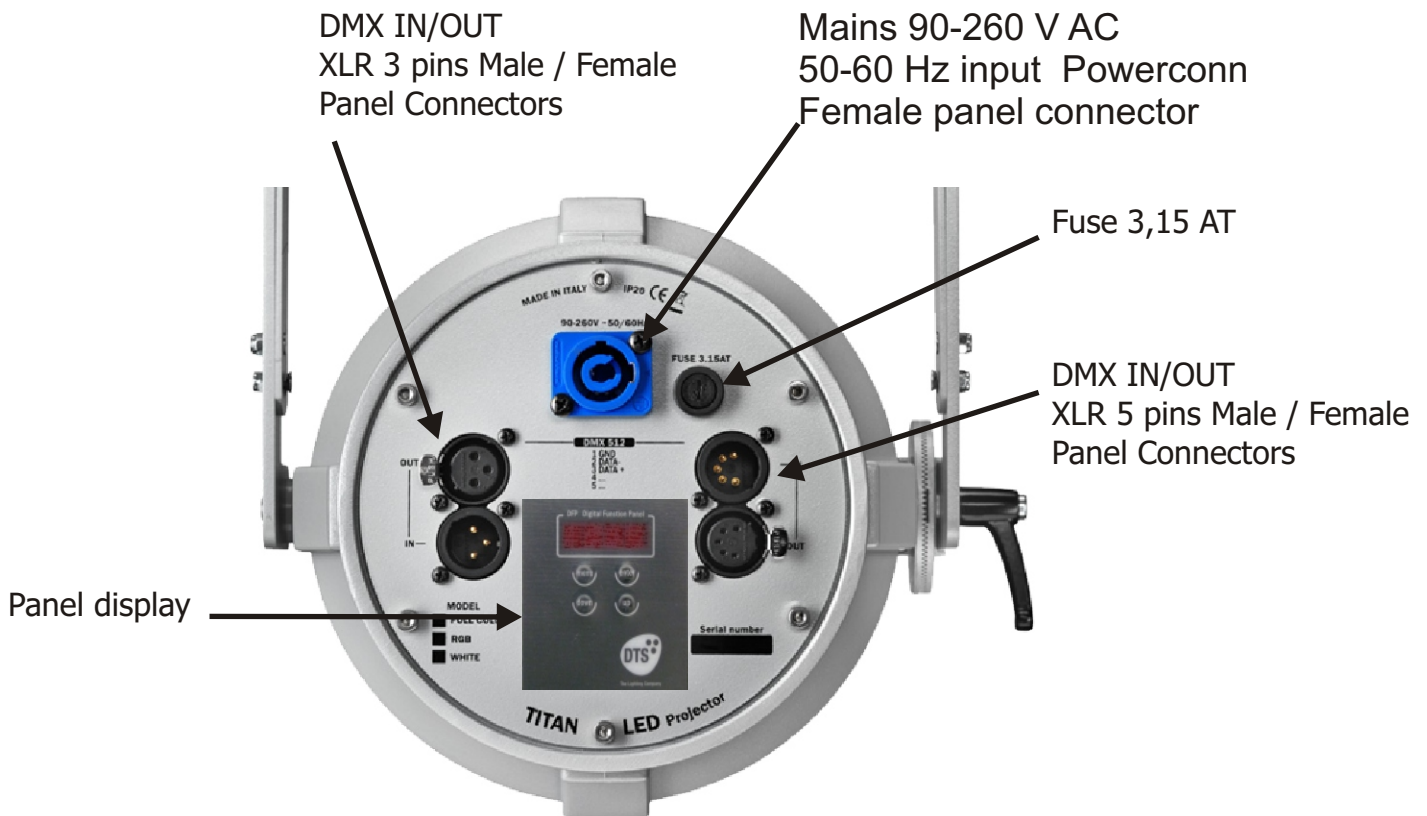
Packing Dimensions
 (LxWxH)
 300 x 320 x 220 mm

Weight
 7,5 Kg



INPUT/OUTPUT CONNECTIONS

TITAN PLUS SOLO IP20

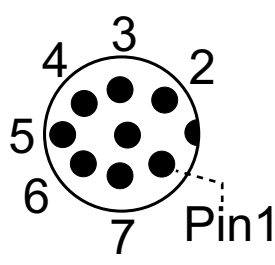
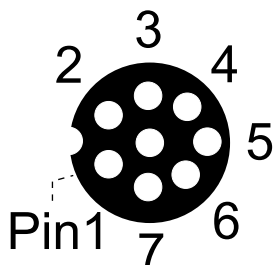


LEDS CONNECTOR PINOUT

- 1-RED + (FC / RGBA / WHITE)
- 2-RED - (FC / RGBA / WHITE)
- 3-GREEN + (FC / RGBA / WHITE)
- 4-GREEN - (FC / RGBA / WHITE)
- 5-BLUE + (FC / RGBA / WHITE)
- 6-BLUE - (FC / RGBA / WHITE)
- 7-AMBER - (RGBA / WHITE)
- 8-AMBER + (RGBA / WHITE)

M12 LED output
Female cable connector

M12 LED input
Male cable connector



INPUT/OUTPUT CONNECTIONS

TITAN PLUS SOLO IP65

Mains 90-260 V AC
50-60 Hz input
3 x 1.5mm² Cable

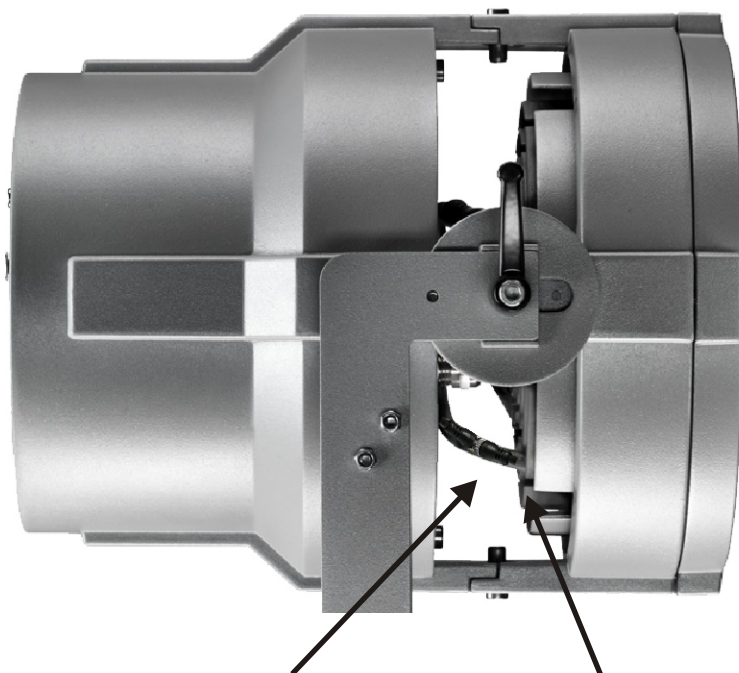
DMX IN/OUT
XRL 5 pin Male
Cable Connectors

Display panel



Fuse 3,15 AT

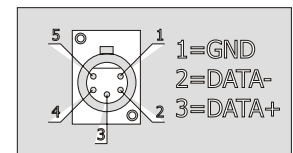
DMX IN/OUT
XRL 5 pin Female
Cable Connectors



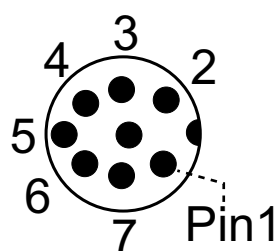
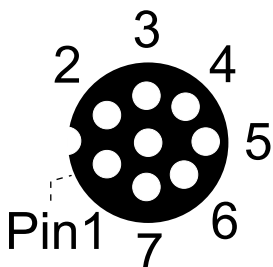
M12 LED output
Female cable connector

M12 LED input
Male cable connector

**CONTROLLER
STANDARD
DMX 512**

**LEDS****CONNECTOR PINOUT**

- 1-RED + (FC / RGBA / WHITE)
- 2-RED - (FC / RGBA / WHITE)
- 3-GREEN + (FC / RGBA / WHITE)
- 4-GREEN - (FC / RGBA / WHITE)
- 5-BLUE + (FC / RGBA / WHITE)
- 6-BLUE - (FC / RGBA / WHITE)
- 7-AMBER - (RGBA / WHITE)
- 8-AMBER + (RGBA / WHITE)



Please note that the XLR connectors installed on the TITAN PLUS IP65 have an IP20 protection rate.

Thus, for any application where an IP65 rate is needed, the XLR connectors must be protected within an IP65-rated container.

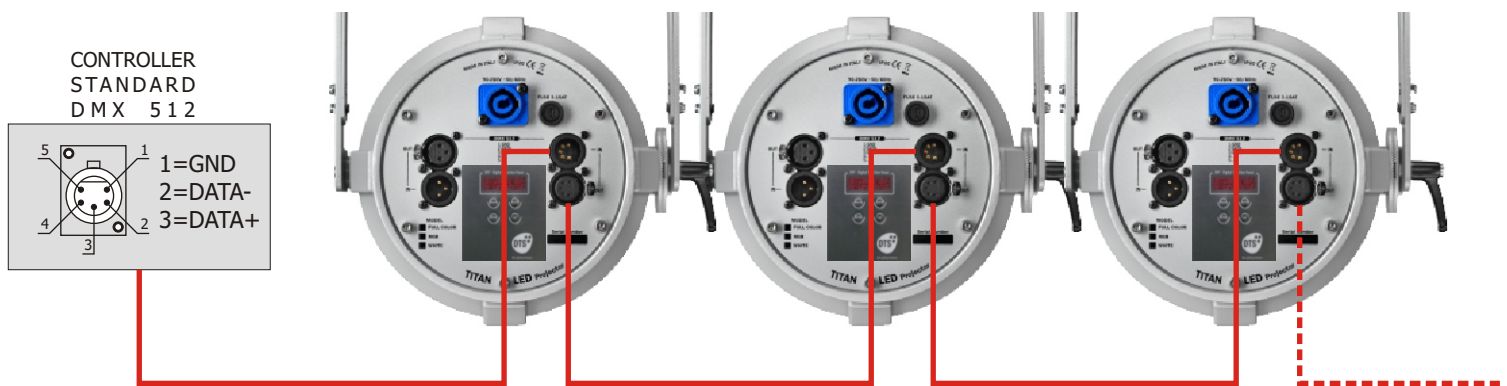
DMX SIGNAL CONNECTION:

TITAN PLUS SOLO IP20

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.



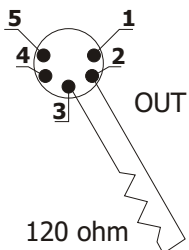
P.S:

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

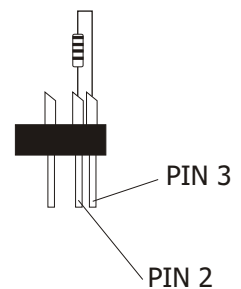
- DMX signal not present
- DMX reception problem

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



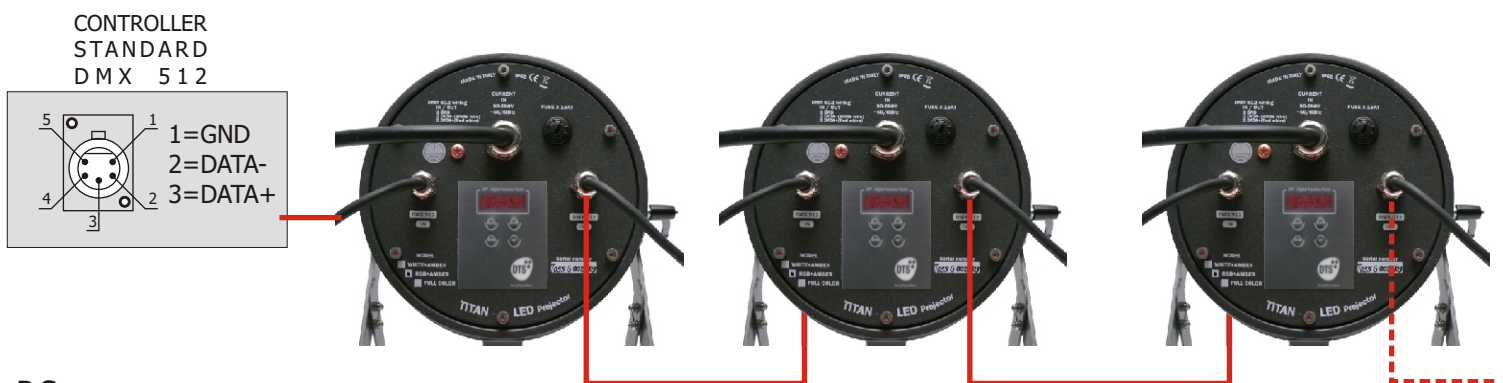
DMX SIGNAL CONNECTION:

TITAN PLUS SOLO IP65

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.



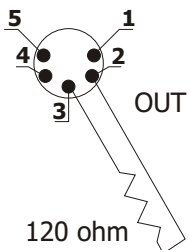
P.S:

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

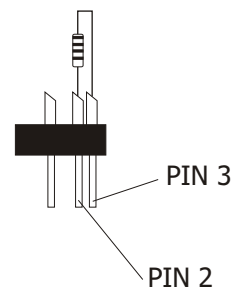
- DMX signal not present
- DMX reception problem

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



Please note that the XLR connectors installed on the TITAN PLUS IP65 have an IP20 protection rate.

Thus, for any application where an IP65 rate is needed, the XLR connectors must be protected within an IP65-rated container.

DMX ADDRESS

TITAN PLUS SOLO FULL COLOR can be used in seven different modes: 9 DMX channels mode (default), 5 DMX channels mode (Shutter + Dimmer + RGB), WALL mode (6 DMX channels; for use with DTS Wall mounted DMX controller 0514L007), M3CH mode (4 DMX channels; Dimmer + RGB), RGB mode (3 channels), 1 DMX channel mode or CUSTOM DMX mode (not yet implemented).

TITAN PLUS SOLO RGBA and TITAN PLUS SOLO WHITE can be used in seven different modes: 10 DMX channels mode (default), 6 DMX channels mode (Shutter + Dimmer + RGBA), WALL mode (6 DMX channels; for use with DTS Wall mounted DMX controller 0514L007), M4CH mode (5 DMX channels; Dimmer + RGBA), RGBA mode (4 channels), 1 DMX channel mode or CUSTOM DMX mode (not yet implemented).

If you want to use the TITAN PLUS SOLO FULL COLOR 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" <u>DTS Wall mounted DMX controller 0514L007 assign 8 DMX channels per unit also if some channels are not used</u>
Projector 2	A009	
Projector 3	A017	
.....	A....	
projector 6	A041	

If you want to use the TITAN PLUS SOLO FULL COLOR in 9 channels mode, select the 9 CH mode from the MODE menu and set the following addresses on the mixer:

Projector 1	A001	If you want to select the next projector, just add "9"
Projector 2	A010	
Projector 3	A019	
.....	A....	
projector 6	A046	

If you want to use the TITAN PLUS SOLO RGB and TITAN PLUS SOLO WHITE in 10 channels mode, select the 10 CH mode from the MODE menu and set the following addresses on the mixer:

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

Selecting the DMX address

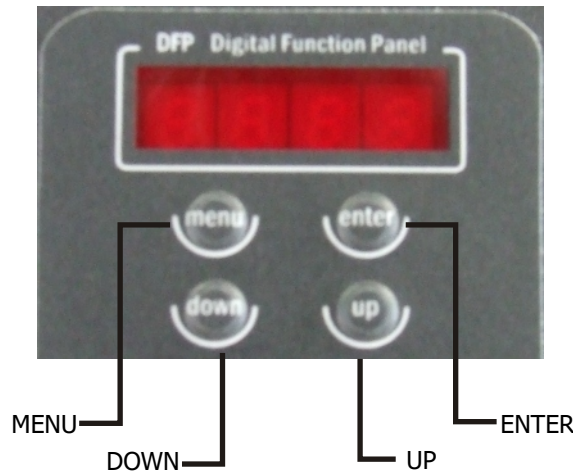
- 1) Press the UP-DOWN key until you reach the required DMX address. The numbers on the display will start to flash (but the new DMX address hasn't yet been set).
- 2) Press ENTER to confirm your selection. The numbers on the display will stop flashing and the projector is now controlled by the new DMX address.

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

- 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.

DISPLAY FUNCTIONS

TITAN PLUS SOLO
FULL COLOUR



DISPLAY FUNCTIONS

The TITAN PLUS SOLO FULL COLOUR 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 4.07

MENU Up-Down	ENTER Up-Down	ENTER Up-Down	ENTER Up-Down	ENTER Up-Down	ENTER	Floor position	ENTER
ADD 1	DISP	POS 1	AA	UU	off	Display OFF	ENTER
REVERSE DISPLAY Reverses display's reading depending on the mounting position (on the ground or suspended).	Up-Down 	Stby	ENTER Up-Down	on	Display always ON	ENTER	
DISPLAY STAND BY To turn off the display (after 5 seconds) or leave it always on.							
MENU Up-Down	ENTER Up-Down	ENTER Up-Down	ENTER Up-Down	ENTER Up-Down	ENTER	Default DMX Mode = 9 CH	
DMX MODE To select DMX mode : 9 DMX channels mode (default), 5 DMX channels mode (Shutter + Dimmer + RGB), WALL mode (6 DMX channels; for use with DTS Wall mounted DMX controller 0514L007), M3CH mode (4 DMX channels; Dimmer + RGB), RGB mode (3 channels), 1 DMX channel mode.	Up-Down	Up-Down	Up-Down	Up-Down	ENTER		
AUX mode let you activate an external ON -OFF control on IR connector. (not implemented on TITAN PLUS)	Up-Down	Up-Down	Up-Down	Up-Down	ENTER	Shutter + Dimmer + RGB	
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)	Up-Down	Up-Down	Up-Down	Up-Down	ENTER	Dimmer + RGB	
MACRO MACRO Function enables channel mapping macro rainbow effects STD (default)	Up-Down	Up-Down	Up-Down	Up-Down	ENTER Up-Down	Custom mode enabled	ENTER
					ENTER	Show Custom settings	ENTER
					ENTER	Parameters Setting on Custom Mode	ENTER
					ENTER	External ON - OFF control on IR connector (not implemented on TITAN PLUS)	
	Up-Down	ENTER Up-Down	ENTER	ENTER	ENTER	Standard mode enabled: (Default).	ENTER
					ENTER	Extended mode enabled: Rainbow effects on MACRO channel.	ENTER



LED



rEd



010

Default = 0



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

000

Default = 100



RGB MINIMUM VALUES
This menu allow to select the
minimum levels for Red,Green and
Blue



GrEE



010

Default = 0



000

Default = 100



RGB MAXIMUM VALUES
This menu allow to select the
maximum levels for Red,Green and
blue



blUE



010

Default = 0



000

Default = 100



These settings have priority
on Master Dimmer channel



SMth



4

Range = Off-20
Default = 4



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)

Off = 25 ms
Istant response to DMX variation

20 = 250 ms
Smooth response to DMX variation

COMPRESSION
This menu allow to select between
linear current output or quadratic
current output for LEDs
Default = Linear



COMP



LINE

Linear = Linear
current output



QUAD

Quadratic =
Linear light
output



SYNC
This menu allow to adjust the PWM
frequency value (Hz) in order to
reduce flickering in the process of
your camera recordings



5400



610

Range = 610 Hz -10 KHz
Default = 610 Hz



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

bst



On

Boost mode activated



OFF

Boost mode deactivated



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



AUTO
 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
 RGB values selectable by user

rAI n
 Rainbow colours effect.
 Speed time selectable by user

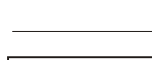
CU01-CU16
 Color Macros as on DMX channel 8 (Macro)

WHITE MACROS
 16 macros for White colour 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

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

ESC
 Exit from Automatic Mode Menu





REC



9CH



r001

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

n001

n002

no.....

no 16

DMX Recorder Mode

For the programming of ChPr by using a DMX controller, besides the 9 channels necessary to control the unit a further 3 DMX channels are needed.

So that in RECORDER mode (via DMX) the unit will need 12 channels to be correctly programmed.

The three new DMX channels are:

DMX channel 10 = 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 11 = 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 12 = 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



SURE



SLU



SLAVE MODE

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

ESC



Ir



On



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

OFF

NOTE:

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

NOT IMPLEMENTED ON TITAN PLUS



FAN



24V



FAN SPEED CONTROL

Internal Fan Speed control selectable by user. Range: OFF - 24 volt Default : 24 Volt

OFF

Fan Speed Control Range: OFF - 24 volt Default = 24 Volt



EMER



SEL



On



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. Usefull for Emergency EXIT illumination on public areas.

OFF

Default = OFF

WHITE



Default = White 1

di nn



Default = 255



dFSE

SUrE


DEFAULT
To restore default settings








tEMP

0250


TEMPERATURE
Internal Unit temperature visualisation

Internal Unit temperature.
(° Celsius)






tIME


rEd


LIFE TIME
This menu show the total UNIT life time and the RGBA life time

GrEE

bLUe

Unit



tEST

tEST

TEST MODE
RGB colours test with rainbow



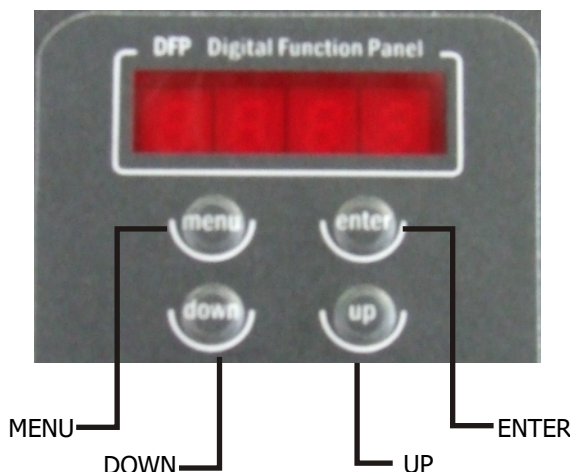
SOFT

v.4.07

SOFTWARE
Software version

DISPLAY FUNCTIONS

TITAN PLUS SOLO RGBA
TITAN PLUS SOLO WHITE



DISPLAY FUNCTIONS

The TITAN PLUS SOLO RGBA/WHITE 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 4.07

MENU Up-Down	ENTER Up-Down	ENTER Up-Down	ENTER Up-Down	ENTER Up-Down	ENTER	Floor position	ENTER																				
001	DISP	POS1	AA	BB	RR	Suspension position	ENTER																				
<p>REVERSE DISPLAY Reverses display's reading depending on the mounting position (on the ground or suspended).</p>		Up-Down	ENTER Up-Down	ENTER Up-Down	ENTER	Display OFF	ENTER																				
<p>DISPLAY STAND BY To turn off the display (after 5 seconds) or leave it always on.</p>		Stby	off	on	ENTER	Display always ON	ENTER																				
<p> MENU Up-Down</p> <p>DMX MODE To select DMX mode : 10 DMX channels mode (default), 6 DMX channels mode (Shutter + Dimmer + RGBA), WALL mode (6 DMX channels; for use with DTS Wall mounted DMX controller 0514L007), M4CH mode (5 DMX channels; Dimmer + RGBA), RGBA mode (4 channels), 1 DMX channel mode.</p> <p>AUX mode let you activate an external ON -OFF control on IR connector. (not implemented on TITAN SOLO)</p> <p>CUSTOM DMX mode let you set the parameters for Shutter, Dimmer, Red, Green, Blue, Amber, Ctc, Macro and Function to the desired DMX channels. (not yet implemented)</p> <p>MACRO MACRO Function, enable channel mapping macro rainbow effects STD (default)</p>		ENTER Up-Down	Up-Down	Up-Down	Up-Down	Up-Down	ENTER	ENTER																			
		node	10CH	6CH	1CH	RGBA	6CH	M4CH	CUST	SEL	Shou	SEt	AUX	MACr	Std	Ext	Default DMX Mode = 10 CH	6 CHANNELS	1 CHANNEL	RGBA (4 CHANNELS)	6 CHANNELS	M4CH (5 CHANNELS)	Custom mode enabled	Show Custom settings	Parameters Setting on Custom Mode	External ON - OFF control on IR connector (not implemented on TITAN SOLO)	Standard mode enabled: (Default). Extended mode enabled: Rainbow effects on MACRO channel.



LED

RGBa Min/Max, Smooth, Compression, Sync and Boost level values settings

RGBa MINIMUM VALUES

This menu allow to select the minimum levels for Red, Green, Blue and Amber

RGBa MAXIMUM VALUES

This menu allow to select the maximum levels for Red, Green, Blue and Amber

These settings have priority on Master Dimmer

SMOOTH VALUE

This menu allow to select the value of the delay (in milliseconds) for RGBa and Dimmer channels reaction to DMX or Program variation.

Off = 25 ms delay (Fast response)
20 = 250 ms delay (Slow response)

COMPRESSION

This menu allow to select between Linear current output or quadratic current output for LEDs
Default = Linear

SYNC

This menu allow to adjust the PWM frequency value (Hz) in order to reduce flickering in the process of your camera recordings

BOOST DRIVING

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



rEd

Up-Down



GrEE

Up-Down



blUE



Ambr

Up-Down



SMth

Up-Down



COMP

Up-Down



54nc

bst



Min

Default = 0



MAX

Default = 100



Min

Default = 0



MAX

Default = 100



Min

Default = 0



MAX

Default = 100



Min

Default = 0



MAX

Default = 100



4

Range = Off - 20
Default = 4



Off = 25 ms
Istant response to DMX variation

20 = 250 ms
Smooth response to DMX variation



Line

Linear = Linear current output



Quad

Quadratic = Linear light output



610

Range = 610 Hz -10 KHz
Default = 610 Hz



On

Boost mode activated



OFF

Boost mode deactivated



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



AUTO

SURE

ChPr

SPEE

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
RGBA values selectable by user

Rainbow (rAI n)
Rainbow colours effect.
Speed time selectable by user

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

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

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

ESC
Exit from Automatic Mode Menu

WAIT

00 10

CUPr

red

120

GrEE

255

BLUE

104

ANbr

0

rAI n

SPEE

00 10

CU01

ENTER Up-Down ENTER

CU02

CU 16

WH01

ENTER Up-Down ENTER

WH02

WH03

WH04

WH05

WH....

WH 16

di nn

ENTER Up-Down

255

ENTER

SHUT

ENTER Up-Down

255

ENTER

ESC



REC



10CH



r001

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

n001

n002

no.....

no 16

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



SLAV



SURE



SLU



SLAVE MODE

Slave mode for ChPr program.

All slave units will be synchronised with master unit, running their own Chpr program.

ESC



Ir



On



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

OFF

NOTE:

External infrared remote sensor needed.

D.T.S. Code :03.LA.016

Not Implemented on TITAN PLUS



FAN



24V



FAN SPEED CONTROL

Internal Fan Speed control selectable by user.

Range: OFF - 24 volt

Default : 24 Volt

OFF

Fan Speed Control

Range: OFF - 24 volt

Default = 24 Volt



EMER



SEL



On



EMERGENCY

Emergency operating mode.

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

OFF

Default = OFF

White






















Default = White 1

di nn



Default = 255

 	dfSE		SurE		
DEFAULT To restore default settings					
 	tENP		0250		Internal Unit temperature. (° Celsius)
TEMPERATURE Internal Unit temperature visualisation					
 	tINE	 		rEd GrEE blUE ANbr Unit	
LIFE TIME This menu show the total UNIT life time and the RGBA life time					
 	tEST		tEST		
TEST MODE RGB colours test with rainbow					
 	SOFT		v.4.07		
SOFTWARE Software version					

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 = TITAN PLUS SOLO FULL COLOUR

4 LEDs channels output mode = TITAN PLUS SOLO RGBA / TITAN PLUS SOLO WHITE

PrOd

PRODUCT MODEL SELECTION:

TITAN PLUS = Default

FOS 100 POWER = only for FOS 100 POWER unit

DELTA 8 = only for DELTA 8 unit

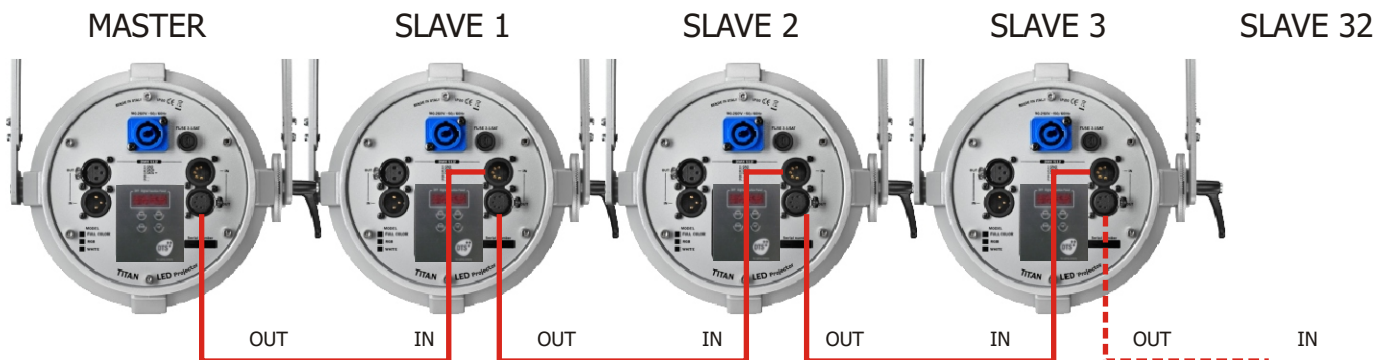
ESC

EXIT

Exit from hidden menu.

AUTOMATIC OPERATION (AUTO):

TITAN PLUS 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 in 9 channels DMX mode (MODE 9 CH) for TITAN PLUS SOLO FULL COLOUR or in 10 channels DMX mode (MODE 10 CH) for TITAN PLUS SOLO RGBA / WHITE 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 (UAIt) 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 Slave units even though these do not have GA.Pr programmed. You can do this by setting the units to 9 ch DMX MODE for TITAN PLUS SOLO FULL COLOUR or 10 channels DMX mode for TITAN PLUS SOLO RGBA / WHITE and selecting DMX address A001.

Rec mode

It is possible to program your own game on the TITAN PLUS 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 9 channels mode for TITAN PLUS SOLO FULL COLOUR and 10 channels mode for TITAN PLUS SOLO RGBA / TITAN PLUS SOLO WHITE.

To program the ChPr by using a DMX controller, you need 3 more channels in addition to the 9/10 channels necessary to control the unit.

So that in RECORDER mode (via DMX) the unit will need 12/13 DMX channels to be correctly programmed. The three new DMX channels are:

TITAN PLUS SOLO FULL COLOUR

DMX channel 10 = 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 11 = 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 12 = 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

TITAN PLUS SOLO RGBA / TITAN PLUS SOLO WHITE

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

DMX PROTOCOL

TITAN PLUS SOLO FULL COLOUR

9 CHANNELS MODE (Default)

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

DMX CHANNEL	1	Parameter: SHUTTER
-------------	----------	---------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9	5				Black-out
10-19	14				Open
20-29	24				Black-out
30-119					Strobe at variable speed from slow to fast (3700ms-20ms)
120-149					Pulse open at variable speed from slow to fast (42,6s-100ms)
150-179					Pulse close at variable speed from slow to fast (42,6s-100ms)
180-204	192				Random Strobe (Master and RGB active)
205-229	218				Random Strobe (Full)
230-234					Red, Yellow, Cyan and Blue colour effects at variable speed
235-255	245				Open

DMX CHANNEL	2	Parameter: DIMMER
-------------	----------	--------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional dimmer

DMX CHANNEL	3	Parameter: RED
-------------	----------	-----------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	4	Parameter: GREEN
-------------	---	-------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	5	Parameter: BLUE
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	6	Parameter: WHITE (Pre-programmed White at diff. color temperature)
-------------	---	---

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-55	23				No Function
56-105	80				Full (Red-Green-Blue at Full)
106-155	130				White DTS

IF CHANNEL 9 (FUNCTIONS) = CUSTOM WHITE RECALL (Dmx range value 0 - 79)

156-205	180				Custom White Recall
206-255	225				White CTC (Channel 7 CTC enabled 256 color temp. Correction Macros: 2800°K-6500°K)

IF CHANNEL 9 (FUNCTIONS) = CUSTOM WHITE CREATE (Dmx range value 80 - 160)

156-205	180				Custom White Create (RGB levels selectable by DMX)
206-255	225				White CTC (Channel 7 CTC enabled 256 color temp. Correction Macros: 2800°K-6500°K)

DMX CHANNEL	7	Parameter: CTC (Color temperature correction)
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
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IF CHANNEL 6 (White) = WHITE CTC (Dmx range value 206 - 255)

0-255	256 color temp. Correction Macros: 0 = 2800°K / 128 = 4500°K / 255 = 6500°K				
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IF CHANNEL 6 (White) = NO FUNCTION (Dmx range value 0 - 55)

0-255	No Function				
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DMX CHANNEL	8	Parameter: COLOUR MACROS
-------------	---	---------------------------------

IF:  **node**  **MAC**  **5td**  **PLEASE CHECK PAGE 11**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-14					No Function
15-29					Macro 1
30-44					Macro 2
45-59					Macro 3
60-74					Macro 4
75-89					Macro 5
90-104					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	8	Parameter: COLOUR MACROS
-------------	---	---------------------------------

IF:  **node**  **MAC**  **EHL**  **PLEASE CHECK PAGE 11**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-14					No Function
15-22					Macro 1
23-30					Macro 2
31-38					Macro 3
39-46					Macro 4
47-54					Macro 5
55-62					Macro 6
63-70					Macro 7
71-78					Macro 8
79-86					Macro 9
87-94					Macro 10
95-102					Macro 11
103-110					Macro 12
111-118					Macro 13
119-126					Macro 14
127-134					Macro 15
135-142					Macro 16

DMX CHANNEL	8	Parameter: COLOUR MACROS
-------------	---	---------------------------------

IF:  

node

MAC

EHL



PLEASE CHECK PAGE 11

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
143-150					Rainbow Speed 1 (1 Sec.)
151-158					Rainbow Speed 2 (5 Sec.)
159-166					Rainbow Speed 3 (10 Sec.)
167-174					Rainbow Speed 4 (20 Sec.)
175-182					Rainbow Speed 5 (30 Sec.)
183-190					Rainbow Speed 6 (60 Sec.)
191-198					Rainbow Speed 7 (120 Sec.)
199-206					Rainbow Speed 8 (180 Sec.)
207-214					Random Speed 1 (0.5 sec.)
215-222					Random Speed 2 (1 Sec.)
223-230					Random Speed 3 (2 Sec.)
231-238					Random Speed 4 (5 Sec.)
239-246					Random Speed 5 (10 Sec.)
247-255					Random Speed 6 (30 Sec.)

DMX CHANNEL	9	Parameter: FUNCTIONS (Recall, Create and Store the Custom white)
-------------	---	---

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-79					Custom White Recall (Enable CH 7 for Custom white Recall)
80-160					Custom White Create (Enable CH 7 for Custom white Creation)
161-255					Custom White Store (Store the Custom White created)

"WALL" 6 CHANNELS MODE (For use with DTS Wall mounted DMX controller 0514L007)

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


MODE

WALL

6 CHANNELS

DMX CHANNEL	1	Parameter: GREEN
-------------	----------	-------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	2	Parameter: RED
-------------	----------	-----------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	3	Parameter: BLUE
-------------	----------	------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	4	Parameter: DIMMER
-------------	----------	--------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional dimmer

DMX CHANNEL	5	Parameter: NOT USED
-------------	----------	----------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					No Function

DMX CHANNEL	6	Parameter: SHUTTER
-------------	----------	---------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9	5				Black-out
10-19	14				Open
20-29	24				Black-out
30-119					Strobe at variable speed from slow to fast (3700ms-20ms)
120-149					Pulse open at variable speed from slow to fast (42,6s-100ms)
150-179					Pulse close at variable speed from slow to fast (42,6s-100ms)
180-204	192				Random Strobe (Master and RGB active)
205-229	218				Random Strobe (Full)
230-234					Red, Yellow, Cyan and Blue colour effects at variable speed
235-255	245				Open

DMX PROTOCOL

TITAN PLUS SOLO FULL COLOUR

5 CHANNELS MODE (Shutter + Dimmer + RGB)

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

DMX CHANNEL	1	Parameter: SHUTTER
-------------	----------	---------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9	5				Black-out
10-19	14				Open
20-29	24				Black-out
30-119		Strobe at variable speed from slow to fast (3700ms-20ms)			
120-149		Pulse open at variable speed from slow to fast (42,6s-100ms)			
150-179		Pulse close at variable speed from slow to fast (42,6s-100ms)			
180-204	192		Random Strobe (Master and RGB active)		
205-229	218		Random Strobe (Full)		
230-234		Red, Yellow, Cyan and Blue colour effects at variable speed			
235-255	245				Open

DMX CHANNEL	2	Parameter: DIMMER
-------------	----------	--------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional dimmer

DMX CHANNEL	3	Parameter: RED
-------------	----------	-----------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	4	Parameter: GREEN
-------------	----------	-------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	5	Parameter: BLUE
-------------	----------	------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX PROTOCOL

TITAN PLUS SOLO FULL COLOUR

M3CH mode M3CH (4 DMX channels; Dimmer + RGB)

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

DMX CHANNEL	1	Parameter: DIMMER
-------------	----------	--------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional dimmer

DMX CHANNEL	2	Parameter: RED
-------------	----------	-----------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	3	Parameter: GREEN
-------------	----------	-------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	4	Parameter: BLUE
-------------	----------	------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX PROTOCOL

TITAN PLUS SOLO FULL COLOUR

RGB mode (3 DMX channels)

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

DMX CHANNEL	1	Parameter: RED
-------------	----------	-----------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	2	Parameter: GREEN
-------------	----------	-------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	3	Parameter: BLUE
-------------	----------	------------------------

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX PROTOCOL

TITAN PLUS SOLO RGBA / WHITE

10 CHANNELS MODE (Default)

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

DMX CHANNEL	1	Parameter: SHUTTER
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9	5				Black-out
10-19	14				Open
20-29	24				Black-out
30-119		Strobe at variable speed from slow to fast (3700ms-20ms)			
120-149		Pulse open at variable speed from slow to fast (42,6s-100ms)			
150-179		Pulse close at variable speed from slow to fast (42,6s-100ms)			
180-204	192		Random Strobe (Master and RGB active)		
205-229	218		Random Strobe (Full)		
230-234		Red, Yellow, Cyan and Blue colour effects at variable speed			
235-255	245				Open

DMX CHANNEL	2	Parameter: DIMMER
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional dimmer

DMX CHANNEL	3	Parameter: RED
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	4	Parameter: GREEN
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	5	Parameter: BLUE
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	6	Parameter: AMBER
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	7	Parameter: WHITE (Pre-programmed White at diff. color temperature)
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-55	23				No Function
56-105	80				Full (Red-Green-Blue at Full)
106-155	130				White DTS

IF CHANNEL 10 (FUNCTIONS) = CUSTOM WHITE RECALL (Dmx range value 0 - 79)

156-205	180	Custom White Recall
206-255	225	White CTC (Channel 8 CTC enabled 256 color temp. Correction Macros: 2800°K-6500°K)

IF CHANNEL 10 (FUNCTIONS) = CUSTOM WHITE CREATE (Dmx range value 80 - 160)

156-205	180	Custom White Create (RGB levels selectable by DMX)
206-255	225	White CTC (Channel 8 CTC enabled 256 color temp. Correction Macros: 2800°K-6500°K)

DMX CHANNEL	8	Parameter: CTC (Color temperature correction)
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
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IF CHANNEL 7 (White) = WHITE CTC (Dmx range value 206 - 255)

0-255	256 color temp. Correction Macros: 0 = 2800°K / 128 = 4500°K / 255 = 6500°K				
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IF CHANNEL 7 (White) = NO FUNCTION (Dmx range value 0 - 43)

0-255	No Function				
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DMX CHANNEL	9	Parameter: COLOUR MACROS
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IF:  **node**  **MAC**  **Std**  **PLEASE CHECK PAGE 16**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-14					No Function
15-29					Macro 1
30-44					Macro 2
45-59					Macro 3
60-74					Macro 4
75-89					Macro 5
90-104					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: COLOUR MACROS
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IF:  **node**  **MACR**  **EHL**  **PLEASE CHECK PAGE 16**

DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-14					No Function
15-22					Macro 1
23-30					Macro 2
31-38					Macro 3
39-46					Macro 4
47-54					Macro 5
55-62					Macro 6
63-70					Macro 7
71-78					Macro 8
79-86					Macro 9
87-94					Macro 10
95-102					Macro 11
103-110					Macro 12
111-118					Macro 13
119-126					Macro 14
127-134					Macro 15
135-142					Macro 16
143-150					Rainbow Speed 1 (1 Sec.)
151-158					Rainbow Speed 2 (5 Sec.)
159-166					Rainbow Speed 3 (10 Sec.)
167-174					Rainbow Speed 4 (20 Sec.)
175-182					Rainbow Speed 5 (30 Sec.)
183-190					Rainbow Speed 6 (60 Sec.)
191-198					Rainbow Speed 7 (120 Sec.)
199-206					Rainbow Speed 8 (180 Sec.)
207-214					Random Speed 1 (0.5 sec.)
215-222					Random Speed 2 (1 Sec.)
223-230					Random Speed 3 (2 Sec.)
231-238					Random Speed 4 (5 Sec.)
239-246					Random Speed 5 (10 Sec.)
247-255					Random Speed 6 (30 Sec.)

DMX CHANNEL	10	Parameter: FUNCTIONS (Recall, Create and Store the Custom white)
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-79					Custom White Recall (Enable CH 6 for Custom white Recall)
80-160					Custom White Create (Enable CH 6 for Custom white Creation)
161-255					Custom White Store (Store the Custom White created)

DMX PROTOCOL

TITAN PLUS SOLO RGBA / WHITE

6 CHANNELS MODE (Shutter + Dimmer + RGBA)

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

DMX CHANNEL	1	Parameter: SHUTTER
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-9	5				Black-out
10-19	14				Open
20-29	24				Black-out
30-119		Strobe at variable speed from slow to fast (3700ms-20ms)			
120-149		Pulse open at variable speed from slow to fast (42,6s-100ms)			
150-179		Pulse close at variable speed from slow to fast (42,6s-100ms)			
180-204	192		Random Strobe (Master and RGB active)		
205-229	218		Random Strobe (Full)		
230-234		Red, Yellow, Cyan and Blue colour effects at variable speed			
235-255	245				Open

DMX CHANNEL	2	Parameter: DIMMER
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional dimmer

DMX CHANNEL	3	Parameter: RED
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	4	Parameter: GREEN			
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	5	Parameter: BLUE			
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	6	Parameter: AMBER			
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX PROTOCOL

TITAN PLUS SOLO RGBA / WHITE

M4CH mode M4CH (5 DMX channels; Dimmer + RGBA)

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

DMX CHANNEL	1	Parameter: DIMMER
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional dimmer

DMX CHANNEL	2	Parameter: RED
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	3	Parameter: GREEN
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	4	Parameter: BLUE
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	5	Parameter: AMBER
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX PROTOCOL

TITAN PLUS SOLO RGBA / WHITE

RGBA mode (4 DMX channels)

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

DMX CHANNEL	1	Parameter: RED
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	2	Parameter: GREEN
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	3	Parameter: BLUE
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

DMX CHANNEL	4	Parameter: AMBER
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DMX range Value	Mid point DMX value	Move range (degrees)	Mode	Option	Function
0-255					Proportional colour

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