SCENA LED 80 CT

DTS

DESIGNED TO SHINE

User's Manual rel 1.0 **GB**

INDEX:

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
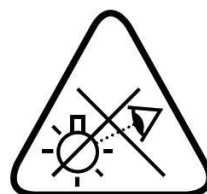
THIS SYMBOL MEANS "DO NOT STARE AT THE OPERATING LIGHT SOURCE"

THIS SYMBOL INDICATES THE EUROPEAN COMMUNITY DIRECTIVE 2012/19/EC ON WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

2- GENERAL WARNING

Read the instruction contained in this user manual carefully, as they give important information regarding safety during installation, use and maintenance.
The unit is not for residential use and must be installed by a qualified electrician or experienced person.
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

SCENA LED 80 CT is a compact, lightweight, DMX-controlled LED projector equipped with an high-power Tunable WHITE LED 2700K ÷ 6000K featuring 2 LED channels (Warm White / Cold White); 9200 Lumens.
The unit features a Ø 112 mm Fresnel lens, and a long excursion 14°-77° linear zoom with high-efficiency optical system.
SCENA LED 80 CT is a modern alternative to conventional lights, improving light quality, flexibility of use and installation, energy savings and component duration.
The fixture doesn't heat up and the projection is always flicker free.
The dimming curves are similar to those of halogen lamps.
The panel connectors are PowerCON In&Out and XLR 5 pins In&Out.
SCENA LED 80 FC is contained in a strong housing with folded edges, designed to resist all the rigors of continuous use.
Also, the yoke has an exclusive round flange + clutch system which guarantees a perfect grip and safer operation.

LED Technology
Tunable WHITE LED 2700K ÷ 6000K
9200 Lumens

Optical group
Ø 112 mm Fresnel lens
14° - 77° linear zoom

Control
DMX 512 / RDM
7 DMX channels (Default)
4-digit 7-segment LED display + 4 soft keys

Connections
Power supply: PowerCON In&Out panel connectors
DMX: XLR 5 pins In&Out panel connectors

Power supply
Full-range 100-240Vac 50-60 Hz
Consumption: 100W Max

Weight
3,7 Kg

Certifications

$C\epsilon$

2014/35/UE ; 2014/30/UE
IEC 62471 ; IEC 695-2-1

EN 60598-1 ; EN 62471 ; EN 61347-2-13
EN 60598-2-17 ; EN 55015 EMC ; EN 61347-1

DIMENSIONS
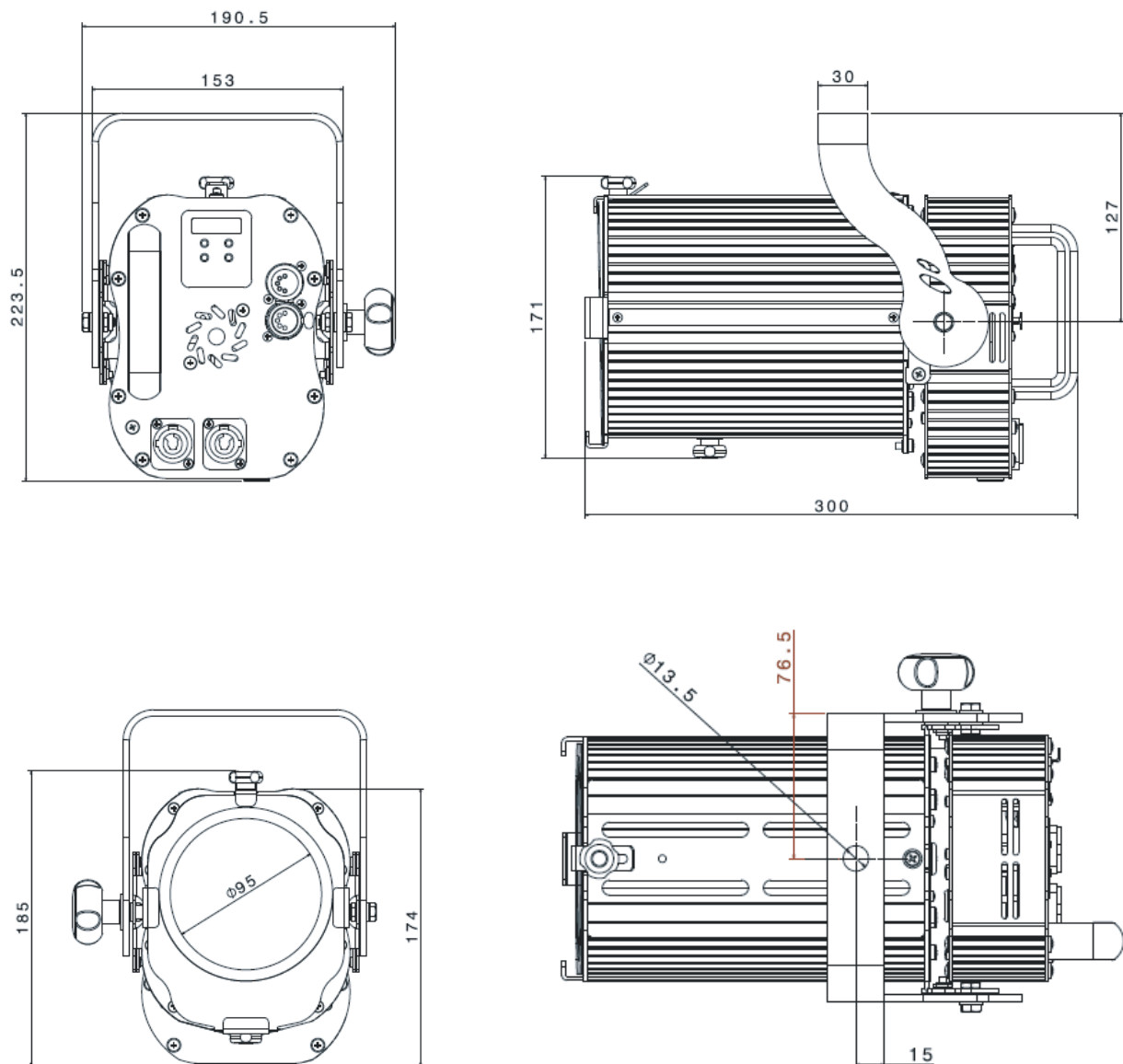
5- ACCESSORIES

As standard

1 x PowerCON male cable connector (DTS Code 0520P014)
1 x XLR 5 pins male cable connector (DTS Code 0508B028)
1 x XLR 5 pins female cable connector (DTS Code 0508B027)
1 x Filterframe black finishing (already installed on the projector) (DTS Code 02M00422.46)
1 x User's Manual

Optional (on request)

- Barndoor black finishing (DTS Code 03.TA206)
- "C" Clamp G50 (Max. Load 10 Kg) (DTS Code 0521A012)
- "C" Clamp G60 (Max. Load 50 Kg) (DTS Code 0521A004)
- Safety cable 3 mm x 60 cm, max capacity load 60 Kg (DTS Code 0521A010)

6- IMPORTANT SAFETY INFORMATION

6.1 Fire prevention:

Replace any blown or damaged fuses only with those of identical value: T 2A 250V.

6.2 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 SCENA LED 80 CT unit. Use only AC supplies 100-240V 50-60 Hz.
SCENA LED 80 CT 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.

6.3 Safety:

The unit is not for residential use and must be installed by a qualified electrician or experienced person.
Do not stare at the operating light source.
The luminaire should be positioned so that prolonged staring into the luminaire at a distance closer than 6 m is not expected.
The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.
The external surface of the unit may exeed 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 exeed 40°C and should not be lower than -10°C.

6.4 Waste Electrical and Electronic equipment (WEEE) directive:

The unit, accessories and packaging should be sorted for environmetal-friendly recycling.
For EC countries: according to the European Directive 2012/19/EC for Waste Electrical and Electronic Equipment and its implementation into national right, luminaires that are no longer usable must be collected separately and disposed of in an environmentally correct manner.

7- INSTALLATION

The unit is suitable for dry locations only.
SCENA LED 80 CT can be installed on a truss or on the ceiling.
It is recommend the use of appropriate clamps to fix the unit to the mounting surface.
ATTENTION:
A safety cable (code 0521A010) must be securely fixed to the unit's mounting bracket
and to the support structure of the projector as showed in the picture below.
Fixing clamps and safety cable are available on request.
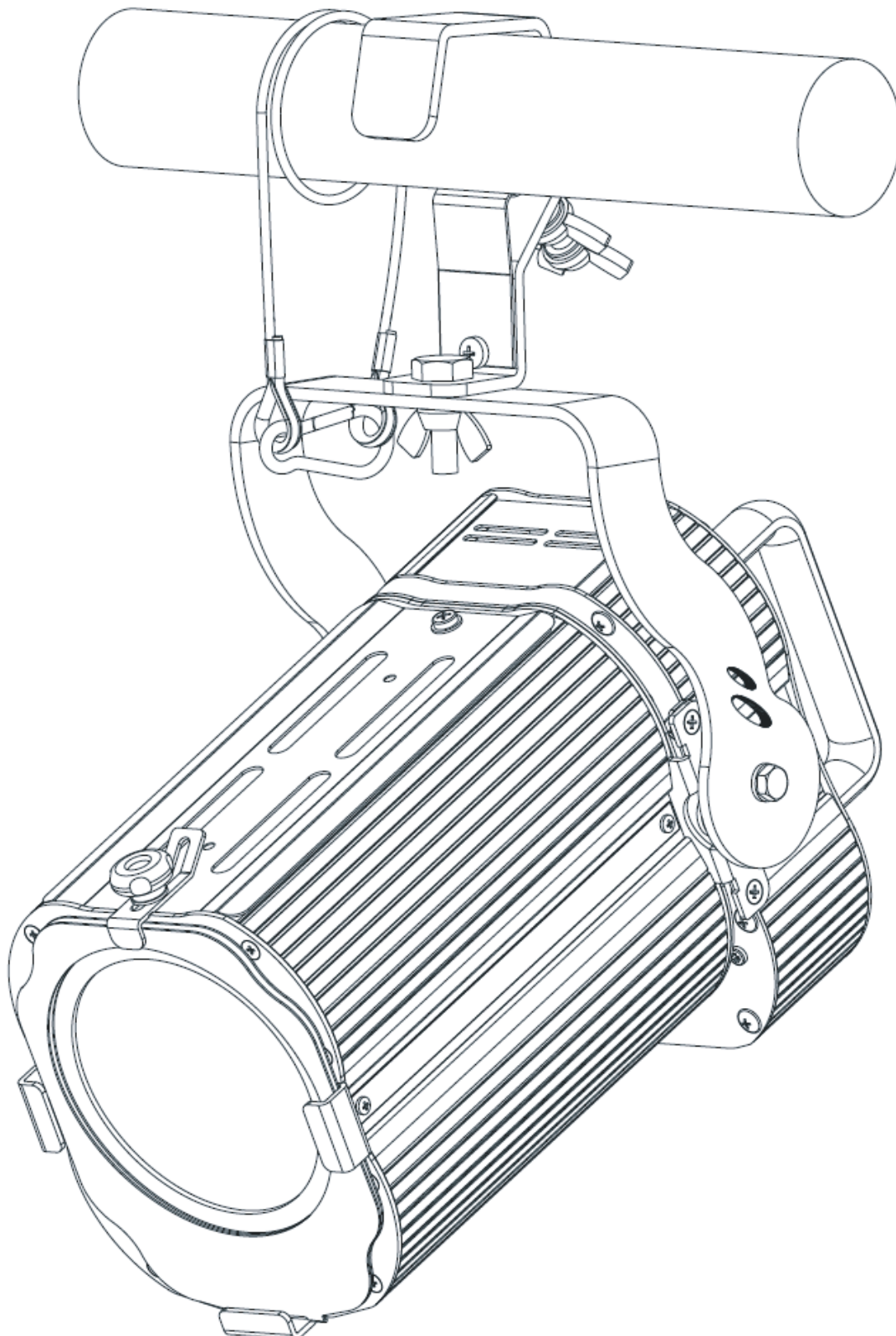
8- INPUT / OUTPUT CONNECTIONS

DISPLAY PANEL

DFP Digital Function Panel

DMX512
1 GND
2 DATA -
3 DATA +
4 NOT USED
5 NOT USED

IN

DMX INPUT
XLR 5 pins male
panel connector

100

menu

enter

100

0

down

up

0

MAN
dimmer

3 sec.
together

MAN
zoom

CT (2700 ÷ 6000K)

DMX/MAN

DTS

$T_a 40°C/T_{case} 60°C$

PROUDLY
MADE IN ITALY

CE

OUT

DMX OUTPUT
XLR 5 pins female
panel connector

WARNING:
RISK OF FIRE AND
ELECTRIC SHOCK:
DO NOT OPEN;
AVERTISSEMENT:
RISQUES D'INCENDIE ET DE CHOC
ÉLECTRIQUE: NE PAS OUVRIR.

SWITCH-MODE SUPPLY
100-240Vac 50/60Hz
MAX POWER: 100W
MAX CURRENT DRAW: 1A

NOT FOR
RESIDENTIAL USE
DRY LOCATIONS ONLY
POUR
EMPLACEMENTS
SECS SEULEMENT

MAINS IN

MAINS OUT
MAX 16A

USE REPLACEMENT
FUSES RATED/
EMPLOYER DES
FUSIBLES DE
RECHANGE:
FUSE T 2A 250V

**FUSE
T 2A 250V**

MAINS INPUT
100-240Vac 50-60 Hz
PowerCon male
panel connector

MAINS OUTPUT
100-240Vac 50-60 Hz
MAX 16A
PowerCon male
panel connector

Max 24 units @ 240Vac
Max 12 units @ 100Vac

9- DMX SIGNAL CONNECTION:

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 ⌀ 0.5 mm.
Ensure that the conductors do not touch each other.
Do not connect the cable ground to the DMX connector chassis.
The plug housing must be isolated. Connect the mixer signal to the DMX IN projector plug and connect it to the next projector by connecting the DMX OUT plug on the first unit to the DMX IN plug of the second one.
In this way, all the projectors are cascade connected.
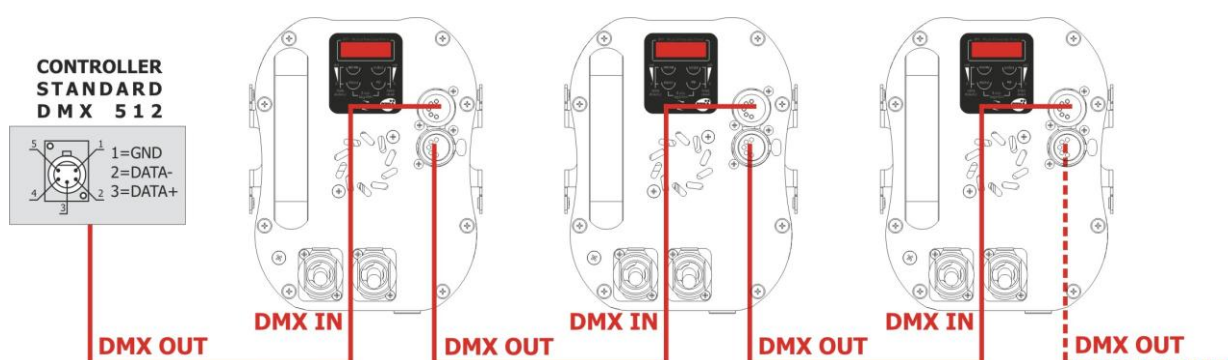
If the display showing the DMX address flashes, then one of the following errors has occurred:
- DMX signal not present
- DMX reception problem

For Installations where long distance DMX cable connections are needed, we suggest to use a DMX terminator.
The DMX terminator is a male XLR 3-5 pins connector with a 120 ohm resistor Between pin 2 and 3.
The DMX terminator must be plugged into the last unit (DMX out panel connector) of the DMX line.
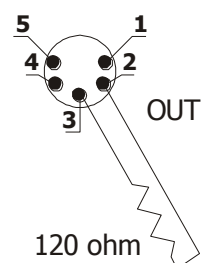
PLACE A 120 OHM RESISTOR BETWEEN PIN 2 AND 3 OF A MALE XRL CONNECTOR AND PLUG IT INTO THE DMX OUT PANEL CONNECTOR OF THE LAST UNIT CONNECTED TO THE DMX LINE
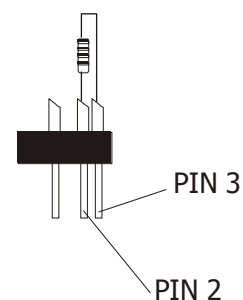
9.1 DMX addresses

SCENA LED 80 CT can be controlled with 7 DMX channels (Default) or 2 DMX channels.
In order to use the unit in 7 DMX channels mode (Default), set the following addresses on the mixer:

Projector 1   A001
Projector 2   A008   If you want to select the next projector, just add "7"
Projector 3   A015
…..   A….
projector 6   A036

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.
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.

10- RDM FUNCTIONS

By using a RDM controller it is possible to set DMX address, DMX mode and other parameters.
SCENA LED 80 CT accepts the following RDM commands:

DEVICE_INFO	To read the following parameters: • RDM protocol version • Fixture model ID • Fixture type • Software version ID • DMX channels • DMX mode • DMX address • Total sub-fixtures • Total sensors
IDENTIFY_DEVICE	All LED channels ON at max power to identify the fixture
DMX_START_ADDRESS	To read / set the DMX address
SOFTWARE_VERSION_LABEL	Software version ID
SUPPORTED_PARAMETERS	List of all supported parameters
PARAMETER_DESCRIPTION	Description / details of Manufacturer Specific parameter as "NO DMX ACTION"
DMX_PERSONALITY	To set the DMX mode
DMX_PERSONALITY_DESCRIPTION	Description / details of the DMX mode
DEVICE_MODEL_DESCRIPTION	Description / details of the Fixture model
MANUFACTURER_LABEL	Producer ID
SENSOR_DEFINITION, SENSOR VALUE	LED Temperature
RDM MANUFACTURER-SPECIFIC PIDs	

NO DMX ACTION	To set the desired fixture's behavior in case DMX signal is missing or not available.
	1 = Black-out
	2 = All channels @ 60%
	3 = All channels @ 100%
	4 = White CCT (Correlated Color Temperature):
	    NO DMX SELECTABLE WHITE CCT
	    1 = 2700K (Default)
	    2 = 3000K
	    3 = 3200K
	    4 = 3500K
	    5 = 4000K
	    6 = 4500K
	    7 = 5000K
	    8 = 5600K
	    9 = 6000K
	    NO DMX SELECTABLE WHITE INTENS.
	    0 ÷ 255 (Default = 0)
	5 = Keep last valid DMX signal

11- FIRMWARE UPDATING

To update the software version of the SCENA LED 80 CT you need:
- DTS RED BOX interface (DTS Code 03.LA.008).
- USB-DMX Driver for the DTS RED BOX interface.
- "DTS Firmware Upgrade Utility v.2.02" program installed on PC.
- Latest firmware release available for SCENA LED 80 CT unit.

Updating the software version.
Please follow the procedure below to perform the update:

1. Install the DTS RED BOX USB-DMX driver on the PC you will use to update the unit software.
2. Connect the DTS RED BOX interface to a spare USB port on the PC (be sure that internal switch on DTS RED BOX is set to COM).
3. Connect the unit DMX input to the DTS RED BOX DMX output with a standard DMX cable and turn ON the unit.
4. Send the new software version into the unit by using "DTS Firmware upgrade Utility v.2.02" program. At the end of the procedure, the unit will reset.

12- DISPLAY FUNCTIONS

The SCENA LED 80 CT display panel shows all the available control menus.
Using these options, it is possible to change the fixture's setting.
Changing the DTS settings can vary the functions of the unit so that it does not respond to the DMX 512 used to control it. Carefully follow the instructions below before carrying out any variations or selections.
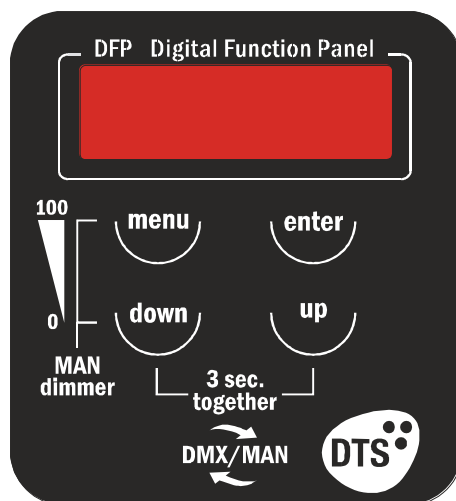
MENU	• To access the control menus in the display panel. • To return to the previous level in the menu structure without making a change. • To exit the menus.
ENTER	• To select any required menu. • To confirm any changes.
UP / DOWN	• To navigate the menus structure. • To change any value.

Firmware release		1.00		

MAIN MENU	LEVEL 1	LEVEL 2	LEVEL 3	FUNCTION
dISP	_PoS1_	_AA_		**Display normal orientation for floor mounting position (Default)**
		_BB_		Display inverted orientation for suspended mounting position
	StbY	_oFF_		**Display always ON (Default)**
		_on_		Display goes OFF after 10 seconds
NEnu	_7 cH_			**Allows to select 7 DMX channels mode (Default)**
	_2 cH_			Allows to select 2 DMX channels mode
LEd	_SNtH_	_oFF-20_		Allows to select the value of the delay (in milliseconds) for Dimmer channel reaction to DMX or Program variation. Off = Instant response to DMX variation. **4 = 100 ms Smooth response to DMX variation (Default)** 20 = 500 ms Smooth response to DMX variation.
	coNP	_9uAd_		**Allows to select Quadratic current for linear light output (Default)**
		LInE		Allows to select Linear current output
	SYnc	_6 10-20.0H_		Allows to adjust the PWM frequency value (Hz) in order to reduce flickering in the process of your camera recordings. **Default = 610 Hz**
	bSt	_on_		Allows to increase the LED's current from 1470mA to 2100mA per channel **Default = ON**
		oFF		
Auto	_SurE_	_2700_ ... _6000_		Automatic mode without DMX controller. 9 White color temperature selection from **2700K (Default)** to 6000K as on DMX channel 6 (CCT). In Auto mode the unit do generate DMX for slave units.
		dINN	_0-255_	Dimmer level selectable by user as on DMX channel 4 (DIMMER) **Default = 255**
		SHut	_0-255_	Shutter level selectable by user as on DMX channel 3 (SHUTTER) **Default = 0**
		ESc		Esc from automatic mode menu
SLAU	_SurE_	_SLU_		Slave mode. The unit is forced to DMX address 1 and 7 DMX channels mode receiving signal from the unit set in Auto mode.
		ESc		Esc from slave mode
ndNH	_LdNH_			No DMX action. Keep last valid DMX signal
	_60_			All channels @ 60%
	_100_			All channels @ 100%
	UHIt	_cct_	_2700_ ... _6000_	9 White color temperature selection from **2700K (Default)** to 6000K as on DMX channel 6 (CCT)
		dINN	_0-255_	Dimmer level selectable for White **Default = 255**
	oFF			Black-out

MAIN MENU	LEVEL 1	LEVEL 2	LEVEL 3	FUNCTION
dFSE	*SurE*			To restore default settings
tEMP	*LEd*	*025.0*		LED temperature monitoring
	drU	*025.0*		LED Driver board temperature monitoring
tIME	*UArM*			Shows the total unit life time and the Warm White / Cold White LEDs life time
	cold			
	unIt			
SoFt	*u. 1.00*			Software version

13- ERROR MESSAGES

ERROR SHOWED ON DISPLAY	APPEARS WHEN
SEnSor Error	LED thermal sensor damaged (open or in short circuit). Unit immediately goes in black-out.
LEd ouErtEMPErAturE	LED temperature detected over 100°C. Unit immediately goes in black-out.

14- DMX PROTOCOL

7 CHANNELS MODE (Default)

1   WARM WHITE 2700K
2   COLD WHITE 6000K
3   SHUTTER
4   DIMMER
5   DIMMER FINE
6   CCT
7   FUNCTIONS

Ch	Name	DMX levels	
1	WARM WHITE 2700K	0..255	Proportional color from min to max
2	COLD WHITE 6000K	0..255	Proportional color from min to max
3	SHUTTER	0..9	Black-out
		10..19	Open
		20..29	Black-out
		30..119	Strobe (da 3,27 s a 30 ms)
		120..149	Pulse up (da 42,6 s a 120 ms)
		150..179	Pulse down (da 42,6 s a 120 ms)
		180..204	Random strobe (Warm White, Cold White, Dimmer, Dimmer Fine active)
		205..229	Independent random strobe (Dimmer, Dimmer Fine active)
		230..255	Open
4	DIMMER	0..255	Proportional dimmer from min to max
5	DIMMER FINE	0..255	Proportional dimmer from min to max
6	CCT	0..010 No func. / 011 2700K / 054 3000K / 083 3200K / 126 3500K / 169 4000K / 198 4500K / 226 5000K / 241 5600K / 255 6000K	Linear color temperature correction from 2700K to 6000K. Relevant CCT (Correlated Color Temperature) values: 11 = 2700K; 54 = 3000K; 83 = 3200K; 126 = 3500K; 169 = 4000K; 198 = 4500K; 226 = 5000K; 241 = 5600K; 255 = 6000K

Ch	Name	DMX levels	
7	FUNCTIONS (staying on desired option for 5 seconds)	0..14	No function
		15..24	SMOOTH OFF
		25..26	SMOOTH 1 (25 ms)
		27..28	SMOOTH 2 (50 ms)
		29..30	SMOOTH 3 (75 ms)
		31..32	SMOOTH 4 (100 ms) (DEFAULT)
		33..34	SMOOTH 5 (125 ms)
		35..36	SMOOTH 6 (150 ms)
		37..38	SMOOTH 7 (175 ms)
		39..40	SMOOTH 8 (200 ms)
		41..42	SMOOTH 9 (225 ms)
		43..44	SMOOTH 10 (250 ms)
		45..46	SMOOTH 11 (275 ms)
		47..48	SMOOTH 12 (300 ms)
		49..50	SMOOTH 13 (325 ms)
		51..52	SMOOTH 14 (350 ms)
		53..54	SMOOTH 15 (375 ms)
		55..56	SMOOTH 16 (400 ms)
		57..58	SMOOTH 17 (425 ms)
		59..60	SMOOTH 18 (450 ms)
		61..62	SMOOTH 19 (475 ms)
		63..64	SMOOTH 20 (500 ms)
		65..74	GAMMA CORRECTION (coΠP) QUADRATIC (DEFAULT)
		75..84	GAMMA CORRECTION (coΠP) LINEAR
		85..104	OUTPUT FREQUENCY 610 Hz (DEFAULT)
		105	OUTPUT FREQUENCY 800 Hz
		106	OUTPUT FREQUENCY 1000 Hz
		107	OUTPUT FREQUENCY 1500 Hz
		108	OUTPUT FREQUENCY 2000 Hz
		109	OUTPUT FREQUENCY 2500 Hz
		110	OUTPUT FREQUENCY 3000 Hz
		111	OUTPUT FREQUENCY 3500 Hz
		112	OUTPUT FREQUENCY 4000 Hz
		113	OUTPUT FREQUENCY 4500 Hz
		114	OUTPUT FREQUENCY 5000 Hz
		115	OUTPUT FREQUENCY 5500 Hz
		116	OUTPUT FREQUENCY 6000 Hz
		117	OUTPUT FREQUENCY 6500 Hz
		118	OUTPUT FREQUENCY 7000 Hz
		119	OUTPUT FREQUENCY 7500 Hz
		120	OUTPUT FREQUENCY 8000 Hz
		121	OUTPUT FREQUENCY 8500 Hz
		122	OUTPUT FREQUENCY 9000 Hz
		123	OUTPUT FREQUENCY 9500 Hz
		124	OUTPUT FREQUENCY 10000 Hz
		125	OUTPUT FREQUENCY 11000 Hz
		126	OUTPUT FREQUENCY 12000 Hz
		127	OUTPUT FREQUENCY 13000 Hz
		128	OUTPUT FREQUENCY 14000 Hz
		129	OUTPUT FREQUENCY 15000 Hz
		130	OUTPUT FREQUENCY 16000 Hz
		131	OUTPUT FREQUENCY 17000 Hz
		132	OUTPUT FREQUENCY 18000 Hz
		133	OUTPUT FREQUENCY 19000 Hz
		134	OUTPUT FREQUENCY 20000 Hz
		135..144	BOOST ON (DEFAULT)
		145..154	BOOST OFF
		155..164	DISPLAY STAND-BY OFF (DEFAULT)
		165..174	DISPLAY STAND-BY ON

Ch	Name	DMX levels	
		175..176	NO DMX ACTION – KEEP LAST DMX (DEFAULT)
		177..178	NO DMX ACTION – Black-out
		179..180	NO DMX ACTION – All channels @ 100%
		181..182	NO DMX ACTION – All channels @ 60%
		183..184	NO DMX ACTION – 2700K..6000K (active CCT as per display menu > NDMX > WHIT or via RDM Custom PIDs (Default = 2700K)
		185..194	RESERVED
		195..204	RESERVED
		205..214	RESERVED
		215..224	RESERVED
		225..234	RESERVED
		235..244	RESERVED
		245..255	RESERVED

2 CHANNELS MODE

1   WARM WHITE 2700K
2   COLD WHITE 6000K

Ch	Name	DMX levels	
1	WARM WHITE 2700K	0..255	Proportional color from min to max
2	COLD WHITE 6000K	0..255	Proportional color from min to max

NOTES

MADE IN ITALY $C \in$

DESIGNED TO SHINE

ISO 9001:2008
DTS quality system
is certified to the
ISO 9001:2008 standard

PROUDLY
MADE IN ITALY

DTS products are designed
and manufactured at the
DTS plants in Italy

0517I287

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