

# SCENA LED 200 MZ FC



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**1- SYMBOLS**

Graphic symbols used on this manual:



**THIS SYMBOL INDICATES A HOT SURFACE**



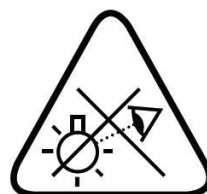
**THIS SYMBOL INDICATES ELECTRIC SHOCK RISK**



**THIS SYMBOL INDICATES GENERAL RISK**

$t_a$  40°C

**THIS SYMBOL INDICATES THE MAXIMUM OPERATING AMBIENT TEMPERATURE**



**THIS SYMBOL MEANS “DO NOT STARE AT THE OPERATING LIGHT SOURCE”**



**THIS SYMBOL INDICATES PHOTOBIOLOGICAL SAFETY**



**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**

### **DTS Product code:**

03.TS055.46.F SCENA LED 200 MZ FR FC

### **LED Technology**

200W FULL RGBW LED

LED lifespan: 50.000 hours (70% lumen output)

### **Optical group**

Ø 150 mm Fresnel lens

14° - 60° motorized linear zoom

### **Color generation**

28 Gel Filters Macros

Linear color temperature (2700K – 8000K)

### **Control**

DMX 512 / RDM or Manual control

12 DMX channels (Default)

4-digit 7-segment LED display + 4 soft keys

Internal operating system updatable via DTS Dongle Firmware Uploader

### **Power supply**

Full-range 100-240Vac 50-60 Hz

Consumption: 200W Max

### **Connections**

Power supply: PowerCON TRUE1 In&Out panel connectors

DMX: XLR 5 pins In&Out panel connectors

### **Internal safety devices**

Overvoltage and overtemperature circuit protection

### **Operating temperature**

-10° / 40°C

### **Weight**

8,7 Kg

### **Certifications**



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



## **6- IMPORTANT SAFETY INFORMATION**

### **6.1 Fire prevention:**

Replace any blown or damaged fuses only with those of identical value: T 3.15A 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 200 MZ FC unit. Use only AC supplies 100-240V 50-60 Hz.  
SCENA LED 200 MZ FC 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:**



Risk Group 2 product according to EN 62471. Risk Group 2



CAUTION. Do not look directly into the light output. May be harmful to the eyes and skin.

Do not stare at the operating light source.



The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

The unit is not for household use and must be installed by a qualified electrician or experienced person.



The external surface of the unit may exceed 60°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.  $t_a$  40°C

### **6.4 Waste Electrical and Electronic equipment (WEEE) directive:**



The unit, accessories and packaging should be sorted for environmental-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.

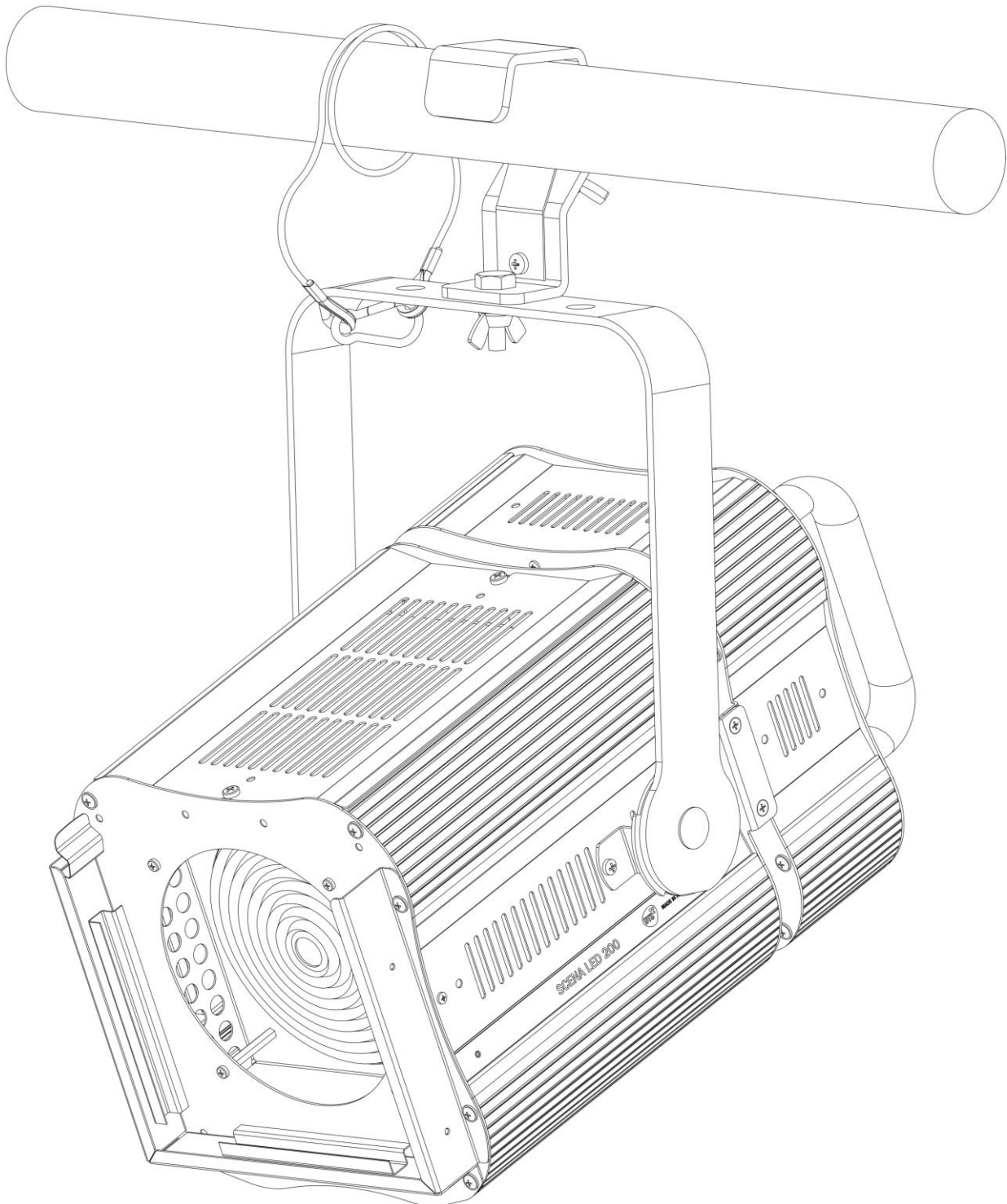
SCENA LED 200 MZ FC can be installed on a truss or on the ceiling.

It is recommend the use of appropriate clamps to fix the unit to the mounting surface.

### **ATTENTION:**

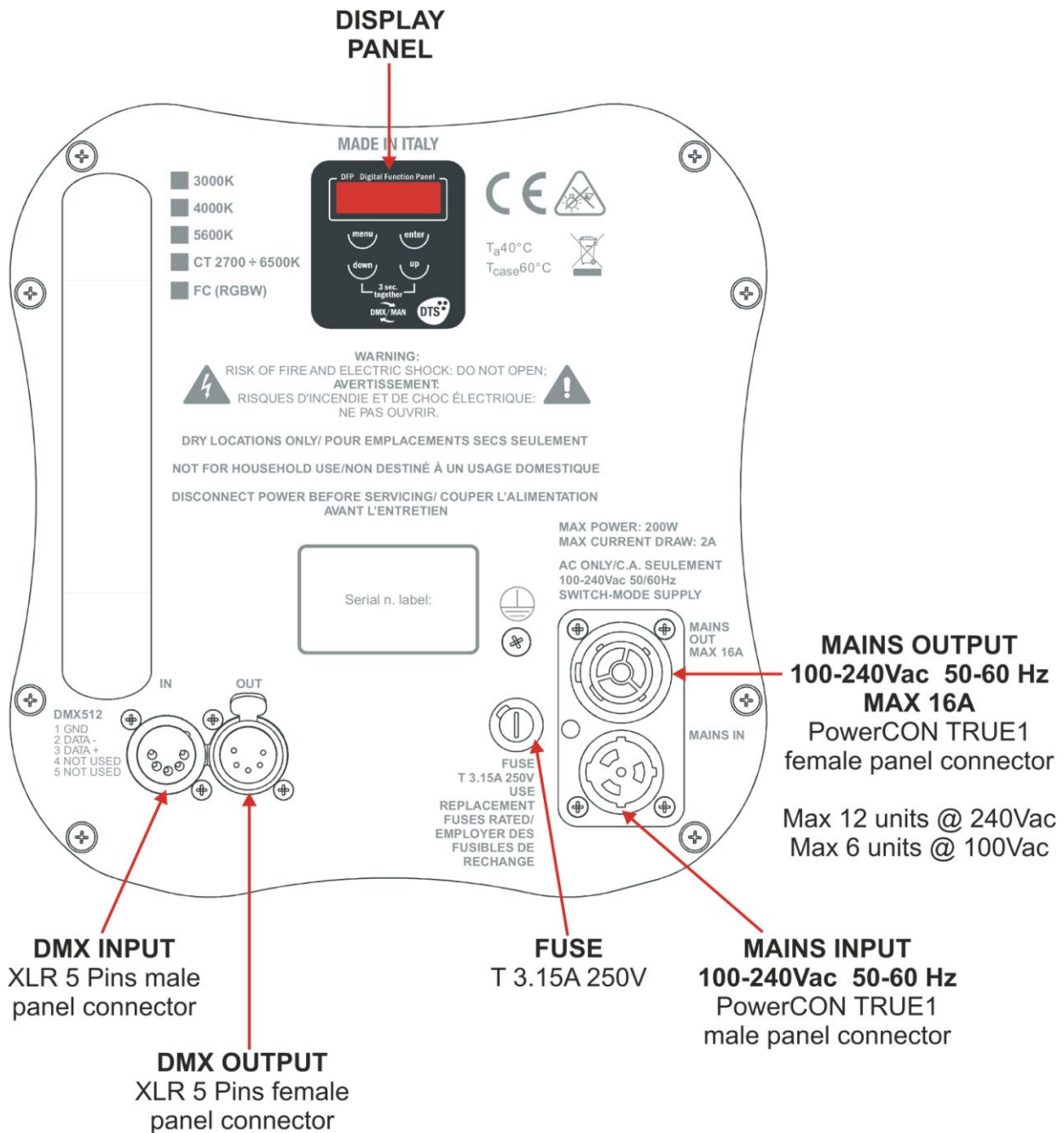
A safety cable (code 0521A010) must be securely fixed to the unit's mounting bracket and to the support structure of the projector as shown in the picture below.

Fixing clamps and safety cable are available on request.





## 8- INPUT / OUTPUT CONNECTIONS



## 9- DMX SIGNAL CONNECTION:

The unit operates using a digital DMX 512 signal.

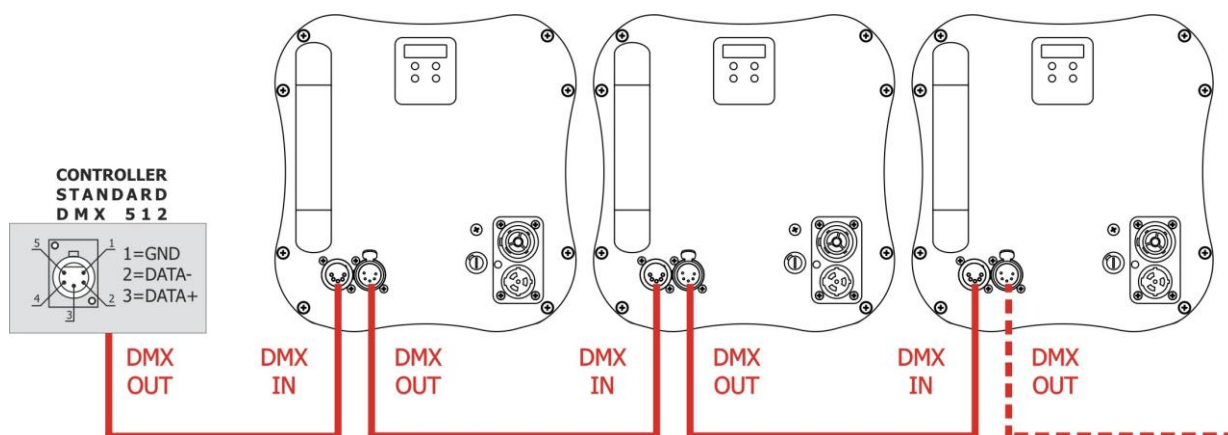
Connection between the controller and the unit or between units must be carried out using a two pair screened  $\varnothing$  0.5 mm.

Ensure that the conductors do not touch each other.

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

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

In this way, all the projectors are cascade connected.



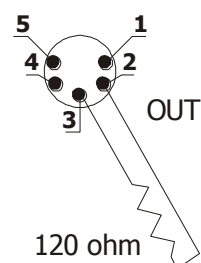
If the display showing the DMX address flashes, then one of the following errors has occurred:

- DMX signal not present
- DMX reception problem

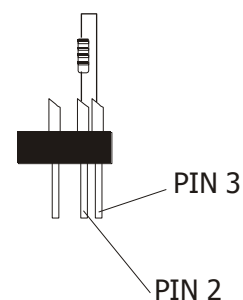
For Installations where long distance DMX cable connections are needed, we suggest to use a DMX terminator.

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

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



PLACE A 120 OHM RESISTOR BETWEEN PIN 2 AND 3 OF A MALE 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 200 MZ FC can be controlled with 12 DMX channels (Default).  
In order to use the unit in 12 DMX channels mode, set the following addresses on the mixer:

|             |        |   |
|-------------|--------|---|
| Projector 1 | A001   |   |
| Projector 2 | A013   | If you want to select the next projector, just add "12" |
| Projector 3 | A025   |   |
| .....       | A..... |   |
| projector 6 | A061   |   |

## **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- RDM FUNCTIONS

By using a RDM controller it is possible to set DMX address, DMX mode and other parameters. SCENA LED 200 MZ FC accepts the following RDM commands:

|                                       |  |
|---------------------------------------|--|
| DEVICE_INFO                           | To read the following parameters: <ul style="list-style-type: none"> <li>• RDM protocol version</li> <li>• Fixture model ID</li> <li>• Fixture type</li> <li>• Software version ID</li> <li>• DMX channels</li> <li>• DMX mode</li> <li>• DMX address</li> <li>• Total sub-fixtures</li> <li>• Total sensors</li> </ul>  |
| 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       | Description / values of sensors  |
| <b>SENSORS</b>                        |  |
| 1: Led Temperature                    | LED temperature  |
| 2: Board Temperature                  | LED Driver board temperature   |
| <b>RDM MANUFACTURER-SPECIFIC PIDs</b> |  |
| NO DMX ACTION                         | To set the desired fixture's behavior in case DMX signal is missing or not available. <ul style="list-style-type: none"> <li>1 = Black-out</li> <li>2 = CHPR as per display menu AUTO &gt; CHPR</li> <li>3 = RGB @ 100% (WHITE channel OFF)</li> <li>4 = CUSTOM: <ul style="list-style-type: none"> <li><b>NO DMX CUSTOM RED</b><br/>0 ÷ 255 (Default = 255)</li> <li><b>NO DMX CUSTOM GREEN</b><br/>0 ÷ 255 (Default = 255)</li> <li><b>NO DMX CUSTOM BLUE</b><br/>0 ÷ 255 (Default = 255)</li> <li><b>NO DMX CUSTOM WHITE</b><br/>0 ÷ 255 (Default = 255)</li> <li><b>NO DMX CUSTOM SHUTTER</b><br/>0 ÷ 255 (Default = 15)</li> <li><b>NO DMX CUSTOM DIMMER</b><br/>0 ÷ 255 (Default = 255)</li> <li><b>NO DMX CUSTOM CCT</b><br/>0 = OFF (Default)<br/>1 = 2700K<br/>2 = 3000K<br/>3 = 3200K<br/>4 = 3500K<br/>5 = 4000K<br/>6 = 4500K<br/>7 = 5000K<br/>8 = 5600K<br/>9 = 6000K<br/>10 = 6500K<br/>11 = 7000K<br/>12 = 8000K</li> <li><b>NO DMX CUSTOM ZOOM</b><br/>0 ÷ 255 (Default = 128)</li> </ul> </li> <li>5 = Keep last valid DMX signal (Default)</li> </ul> |

## **11- FIRMWARE UPDATING**

To update the firmware release of the SCENA LED 200 MZ FC you need:

- DTS Dongle Firmware Uploader (code 03.LA.206).
- “DTS Firmware Upgrade Utility v.2.02” program installed on PC.
- Latest firmware release available for SCENA LED 200 MZ FC unit.

### **Updating the firmware release.**

Please follow the procedure below to perform the update:

1. Connect the DTS Dongle Firmware Uploader to a spare USB port on the PC.
2. Connect the unit DMX input to the DTS Dongle Firmware Uploader DMX output with a standard DMX cable and turn ON the unit.
3. Send the new firmware release into the unit by using “DTS Firmware Upgrade Utility v.2.02” program. At the end of the procedure, the unit will reset.

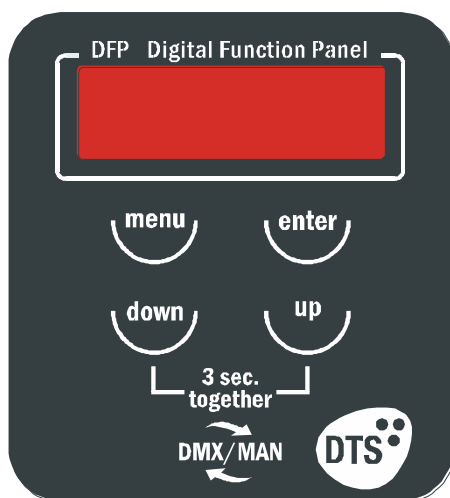
For more information please refer to an authorised DTS service centre.

## **12- DISPLAY FUNCTIONS**

The SCENA LED 200 MZ FC 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.



|                  |   |
|------------------|---|
| <b>MENU</b>      | <ul style="list-style-type: none"> <li>• To access the control menus in the display panel.</li> <li>• To return to the previous level in the menu structure without making a change.</li> <li>• To exit the menus.</li> </ul> |
| <b>ENTER</b>     | <ul style="list-style-type: none"> <li>• To select any required menu.</li> <li>• To confirm any changes.</li> </ul>   |
| <b>UP / DOWN</b> | <ul style="list-style-type: none"> <li>• To navigate the menus structure.</li> <li>• To change any value.</li> </ul>  |

|                            |   |
|----------------------------|---|
| <b>FIRMWARE RELEASE</b>    | <b>1.01</b>   |
| <b>RDM Device Model ID</b> | <b>0x0D50</b>   |
| <b>DMX Personality IDs</b> | <b>0x01</b> “RGBW 12 chans”<br><b>0x02</b> “RGBW 5 chans”<br><b>0x03</b> “RGBW 7 chans”<br><b>0x04</b> “RGBW FINE 11 chans” |

| 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   |
| Node      | 12 cH                      |           |              | Allows to select 12 DMX channels mode (Default)   |
|           | 5 cH                       |           |              | Allows to select 5 DMX channel mode   |
|           | 7 cH                       |           |              | Allows to select 7 DMX channel mode   |
|           | FInE                       |           |              | Allows to select FINE mode (11 DMX channels)  |
| LEd       | SntH                       | OFF-20    |              | Allows to select the value of the delay (in milliseconds) for Dimmer channel reaction to DMX or Program variation.<br>Off = Instant response to DMX variation.<br><b>4 = 100 ms Smooth response to DMX variation (Default)</b><br>20 = 500 ms Smooth response to DMX variation. |
|           |                            | coNP      | QuAd         | Allows to select Quadratic current for linear light output (Default)  |
|           |                            | LinE      |              | Allows to select Linear current output  |
|           | SYnc                       | 6 10-5000 |              | Allows to adjust the PWM frequency value (Hz) in order to reduce flickering in the process of your camera recordings.<br><b>Default = 610 Hz</b>  |
|           | bSt                        | on        |              | Allows to increase the LED's current from 70% to 100%   |
|           |                            | OFF       |              | <b>Default = ON</b>   |
| Auto      | cHPr<br>-<br>STEP<br>01-16 | SPEE      | 1-3600       | Automatic mode without DMX controller.<br>Chase with 16 steps previously created in REC mode.<br>Speed time and wait time values (in seconds) selectable by user (Default = 10).<br>In Auto mode the unit do generate DMX for slave units.                                      |
|           |                            | URIT      | 1-3600       |   |
|           | cPD1<br>cP16               | red       | 0-255        | 16 customizable Colour Macros. RGBW values selectable by user (Default = 255).  |
|           |                            | GrEE      | 0-255        |   |
|           |                            | bluE      | 0-255        |   |
|           |                            | WHIT      | 0-255        |   |
|           | rRin                       | SPEE      | 1-3600       | Rainbow colours effect.<br>Speed time value (in seconds) selectable by user (Default = 10).   |
|           | cUD1<br>cU28               |           |              | 28 Colour Macros as on DMX channel 9 (MACRO COLOR).<br><b>Default = 01</b>  |
|           |                            | cct       | 2700<br>8000 | 12 White color temperature from 2700K to 8000K as on DMX channel 8 (CCT).<br><b>Default = 2700K</b>   |
|           | dinn                       |           |              | Dimmer level selectable by user as on DMX channel 6 (DIMMER)<br><b>Default = 255</b>  |
|           | SHut                       |           |              | Shutter level selectable by user as on DMX channel 5 (SHUTTER) <b>Default = 15</b>  |
|           | zooN                       |           |              | Zoom excursion selectable by user as on DMX channel 11 (ZOOM) <b>Default = 128</b>  |
|           | ESc                        |           |              | Esc from automatic mode.  |

| MAIN MENU | LEVEL 1 | LEVEL 2  | LEVEL 3  | FUNCTION   |
|-----------|---------|--|--|--|
| rEc       | 12cH    | r001   |  | In DMX Recorder mode it is possible to create and store the scenes of the CHPR menu by using an external DMX controller. The unit must be set to 12 DMX channels mode. Refer to "REC MODE" at page 16. |
|           |         | n001   |  |  |
|           |         | n016   |  |  |
| SLAU      | SurE    | SLU  |  | Slave mode. The unit is forced to DMX address 1 and 12 DMX channels mode receiving signal from the unit set in Auto mode.  |
|           |         | ESc  |  | Esc from slave mode  |
| FAn       | Std     |  |  | Allows to select the internal fans speed. Standard mode: High fans speed. Silent mode: Low fans speed for a very low noise operation. <b>Default = SIL</b>   |
|           | SIL     |  |  |  |
| Zoon      | Std     |  |  | Allows to select the Zoom speed. Standard mode: Zoom maximum speed. Silent mode: Zoom medium speed for a very low noise operation. <b>Default = SIL</b>  |
|           | SIL     |  |  |  |
| ndnH      | LdnH    |  |  | No DMX action. <b>Keep last valid DMX signal (Default)</b>   |
|           | cHPr    | SPEE   | 1-3600   | Chase with 16 steps previously created in REC mode. Speed time and wait time values (in seconds) selectable by user <b>(Default = 10)</b> .  |
|           |         | WAIt   | 1-3600   |  |
|           | 100     |  |  | RGB @ 100% (WHITE channel OFF)   |
|           | cUSt    | rEd  | 0-255  | Custom. RGBW level selectable by user <b>Default = 255</b>   |
|           |         | GrEE   | 0-255  |  |
|           |         | bluE   | 0-255  | Shutter level selectable by user as on DMX channel 5 (SHUTTER) <b>Default = 15</b>   |
|           |         | WHIt   | 0-255  |  |
|           |         | SHut   | 0-255  | Dimmer level selectable by user as on DMX channel 6 (DIMMER) <b>Default = 255</b>  |
|           |         | dImn   | 0-255  |  |
| cct       |         | oFF<br>2700  | 12 White color temperature from 2700K to 8000K as on DMX channel 8 (CCT). <b>Default = OFF</b> |  |
| 2oon      | 0-255   | Zoom excursion selectable by user as on DMX channel 11 (ZOOM) <b>Default = 128</b> |  |  |
| rESE      | oFF     |  |  | Black-out  |
|           | on      |  |  | Zoom motor startup reset enabled <b>Default = ON</b>   |
|           | oFF     |  |  | Zoom motor startup reset disabled (active only in Manual mode)   |
|           | noU     |  |  | Instant Zoom motor reset   |
| dfSE      | SurE    |  |  | To restore default settings  |
| tEMP      | LEd     | 025.0  |  | LED temperature monitoring   |
|           | drU     | 025.0  |  | LED Driver board temperature monitoring  |
| tINE      | rEd     |  |  | Shows the total unit life time and the RGBW LEDs life time   |
|           | GrEE    |  |  |  |
|           | bluE    |  |  |  |
|           | WHIt    |  |  |  |
|           | unit    |  |  |  |
| SoFt      | v. 1.00 |  |  | Software version   |

## 13- REC MODE

### **DMX Recorder mode**

For the programming of ChPr by using a DMX controller, besides the 12 channels necessary to control the unit a further 3 DMX channels are needed.

So that in RECORDER mode (via DMX) the unit will need 15 channels to be correctly programmed.

The three new DMX channels are:

DMX channel 13 = 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 14 = 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 15 = 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.

## 14- MANUAL MODE

Manual mode can be activated by pressing at the same time 'UP' and 'DOWN' keys on unit display for 3 seconds (A001).

In Manual mode it is possible to select:

|             |                           |   |
|-------------|---------------------------|---|
| <i>rEd</i>  | <i>0-255</i>              | RGBW level selectable by user<br><b>Default = 255</b>   |
| <i>GrEE</i> | <i>0-255</i>              |   |
| <i>bluE</i> | <i>0-255</i>              |   |
| <i>WHtE</i> | <i>0-255</i>              |   |
| <i>SHut</i> | <i>0-255</i>              | Shutter level selectable by user as on DMX channel 5 (SHUTTER)<br><b>Default = 15</b>                       |
| <i>dimm</i> | <i>0-255</i>              | Dimmer level selectable by user as on DMX channel 6 (DIMMER)<br><b>Default = 255</b>                        |
| <i>cct</i>  | <i>oFF</i><br><i>2700</i> | 12 White color temperature selection from 2700K to 8000K as on DMX channel 8 (CCT).<br><b>Default = OFF</b> |
|             | <i>8000</i>               |   |
| <i>zooM</i> | <i>0-255</i>              | Zoom excursion selectable by user as on DMX channel 11 (ZOOM)<br><b>Default = 128</b>                       |
| <i>Esc</i>  |                           | Esc from Manual mode  |

When Manual mode is active, unit switch OFF/ON cycle will maintain Manual Mode selection.

In Manual mode the DMX signal is ignored.



**15- ERROR MESSAGES**

| <b>ERROR SHOWED ON DISPLAY</b> | <b>APPEARS WHEN</b>  |
|--------------------------------|--|
| <i>LEd SEnSor Error</i>        | LED thermal sensor damaged (open or in short circuit).<br>Unit immediately goes in black-out.              |
| <i>LEd ovErTEmPERAturE</i>     | LED temperature detected over 70°C.<br>Unit immediately goes in black-out.                                 |
| <i>Micro SEnSor Error</i>      | Micro controller thermal sensor damaged (open or in short circuit).<br>Unit immediately goes in black-out. |
| <i>Micro ovErTEmPERAturE</i>   | Micro controller temperature detected over 75°C.<br>Unit immediately goes in black-out.                    |
| <i>rESEt Error</i>             | Zoom motor position error  |

**16- DMX PROTOCOL****12 CHANNELS MODE (Default)**

- 1 RED
- 2 GREEN
- 3 BLUE
- 4 WHITE
- 5 SHUTTER
- 6 DIMMER
- 7 DIMMER FINE
- 8 CCT
- 9 MACRO COLOR
- 10 FUNCTIONS
- 11 ZOOM
- 12 RESET

| <i>Ch</i> | <i>Name</i> | <i>DMX levels</i> |   |
|-----------|-------------|-------------------|---|
| 1         | RED         | 0..255            | Proportional color from min to max                                |
| 2         | GREEN       | 0..255            | Proportional color from min to max                                |
| 3         | BLUE        | 0..255            | Proportional color from min to max                                |
| 4         | WHITE       | 0..255            | Proportional color from min to max                                |
| 5         | 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 (RGBW, CCT, Macro, Dimmer, Dimmer Fine active)      |
|           |             | 205..229          | Independent random strobe (Dimmer, Dimmer Fine active)            |
|           |             | 230..235          | Single flash 30 ms (RGBW, CCT, Macro, Dimmer, Dimmer Fine active) |
| 236..255  | Open        |                   |   |
| 6         | DIMMER      | 0..255            | Proportional dimmer from min to max                               |
| 7         | DIMMER FINE | 0..255            | Proportional dimmer from min to max                               |
| 8         | CCT         | 0..009            | No func.  |
|           |             | 010               | 2700K   |
|           |             | 033               | 3000K   |
|           |             | 055               | 3200K   |
|           |             | 077               | 3500K   |
|           |             | 099               | 4000K   |
|           |             | 121               | 4500K   |
|           |             | 143               | 5000K   |
|           |             | 165               | 5600K   |
|           |             | 187               | 6000K   |
|           |             | 209               | 6500K   |
|           |             | 232               | 7000K   |
|           |             | 255               | 8000K   |
|           |             |                   |   |

| <i>Ch</i> | <i>Name</i> | <i>DMX levels</i> |  |
|-----------|-------------|-------------------|--|
| 9         | MACRO COLOR | 0..09             | No function  |
|           |             | 10..20            | 1: GEL FILTER NO.19 "FIRE" (R255 G15 B0 W0 $co\pi P=LInE$ )<br>(R255 G62 B0 W0 $co\pi P=9uRd$ )                    |
|           |             | 21..25            | 2: GEL FILTER NO.20 "MEDIUM AMBER" (R231 G80 B0 W0 $co\pi P=LInE$ )<br>(R243 G143 B0 W0 $co\pi P=9uRd$ )           |
|           |             | 26..30            | 3: GEL FILTER NO.25 "SUNSET RED" (R231 G39 B1 W0 $co\pi P=LInE$ )<br>(R243 G100 B16 W0 $co\pi P=9uRd$ )            |
|           |             | 31..35            | 4: GEL FILTER NO.68 "SKY BLUE" (R0 G255 B109 W28 $co\pi P=LInE$ )<br>(R0 G255 B167 W85 $co\pi P=9uRd$ )            |
|           |             | 36..40            | 5: GEL FILTER NO.101 "YELLOW" (R255 G135 B0 W0 $co\pi P=LInE$ )<br>(R255 G186 B0 W0 $co\pi P=9uRd$ )               |
|           |             | 41..45            | 6: GEL FILTER NO.104 "DEEP AMBER" (R255 G117 B0 W0 $co\pi P=LInE$ )<br>(R255 G173 B0 W0 $co\pi P=9uRd$ )           |
|           |             | 46..50            | 7: GEL FILTER NO.105 "ORANGE" (R255 G68 B0 W0 $co\pi P=LInE$ )<br>(R255 G132 B0 W0 $co\pi P=9uRd$ )                |
|           |             | 51..55            | 8: GEL FILTER NO.106 "PRIMARY RED" (R255 G0 B0 W0 $co\pi P=LInE$ )<br>(R255 G0 B0 W0 $co\pi P=9uRd$ )              |
|           |             | 56..60            | 9: GEL FILTER NO.111 "DARK PINK" (R247 G10 B0 W96 $co\pi P=LInE$ )<br>(R251 G51 B0 W157 $co\pi P=9uRd$ )           |
|           |             | 61..65            | 10: GEL FILTER NO.113 "MAGENTA" (R255 G5 B4 W19 $co\pi P=LInE$ )<br>(R255 G36 B32 W0 $co\pi P=9uRd$ )              |
|           |             | 66..70            | 11: GEL FILTER NO.117 "STEEL BLUE" (R56 G110 B0 W255 $co\pi P=LInE$ )<br>(R120 G168 B0 W255 $co\pi P=9uRd$ )       |
|           |             | 71..75            | 12: GEL FILTER NO.118 "LIGHT BLUE" (R0 G230 B44 W23 $co\pi P=LInE$ )<br>(R0 G243 B106 W77 $co\pi P=9uRd$ )         |
|           |             | 76..80            | 13: GEL FILTER NO.122 "FERN GREEN" (R107 G255 B0 W30 $co\pi P=LInE$ )<br>(R166 G255 B0 W88 $co\pi P=9uRd$ )        |
|           |             | 81..85            | 14: GEL FILTER NO.126 "MAUVE" (R255 G0 B40 W0 $co\pi P=LInE$ )<br>(R255 G0 B101 W0 $co\pi P=9uRd$ )                |
|           |             | 86..90            | 15: GEL FILTER NO.132 "MEDIUM BLUE" (R0 G255 B95 W0 $co\pi P=LInE$ )<br>(R0 G255 B156 W0 $co\pi P=9uRd$ )          |
|           |             | 91..95            | 16: GEL FILTER NO.136 "PALE LAVANDER" (R255 G75 B0 W255 $co\pi P=LInE$ )<br>(R255 G139 B0 W255 $co\pi P=9uRd$ )    |
|           |             | 96..100           | 17: GEL FILTER NO.137 "LAVANDER" (R255 G189 B52 W255 $co\pi P=LInE$ )<br>(R255 G218 B115 W255 $co\pi P=9uRd$ )     |
|           |             | 101..105          | 18: GEL FILTER NO. 138 "PALE GREEN" (R255 G177 B0 W45 $co\pi P=LInE$ )<br>(R255 G213 B0 W107 $co\pi P=9uRd$ )      |
|           |             | 106..110          | 19: GEL FILTER NO.139 "PRIMARY GREEN" (R26 G255 B0 W0 $co\pi P=LInE$ )<br>(R82 G255 B0 W0 $co\pi P=9uRd$ )         |
|           |             | 111..115          | 20: GEL FILTER NO.147 "APRICOT" (R255 G80 B0 W22 $co\pi P=LInE$ )<br>(R255 G143 B0 W75 $co\pi P=9uRd$ )            |
|           |             | 116..120          | 21: GEL FILTER NO.151 "GOLD TINT" (R255 G94 B0 W75 $co\pi P=LInE$ )<br>(R255 G155 B0 W139 $co\pi P=9uRd$ )         |
|           |             | 121..125          | 22: GEL FILTER NO.154 "PALE ROSE" (R224 G90 B0 W85 $co\pi P=LInE$ )<br>(R239 G152 B0 W148 $co\pi P=9uRd$ )         |
|           |             | 126..130          | 23: GEL FILTER NO.156 "CHOCOLATE" (R255 G98 B0 W50 $co\pi P=LInE$ )<br>(R255 G158 B0 W113 $co\pi P=9uRd$ )         |
|           |             | 131..135          | 24: GEL FILTER NO. 181 "CONGO BLUE" (R37 G57 B240 W0 $co\pi P=LInE$ )<br>(R97 G121 B248 W0 $co\pi P=9uRd$ )        |
|           |             | 136..140          | 25: GEL FILTER NO.200 "DOUBLE CT BLUE" (R23 G128 B51 W104 $co\pi P=LInE$ )<br>(R77 G181 B114 W163 $co\pi P=9uRd$ ) |
|           |             | 141..145          | 26: GEL FILTER NO.201 "FULL CT BLUE" (R0 G16 B0 W255 $co\pi P=LInE$ )<br>(R0 G64 B0 W255 $co\pi P=9uRd$ )          |
|           |             | 146..150          | 27: GEL FILTER NO.204 "FULL CT ORANGE" (R255 G102 B0 W25 $co\pi P=LInE$ )<br>(R255 G162 B0 W80 $co\pi P=9uRd$ )    |
|           |             | 151..155          | 28: GEL FILTER NO.341 "PLUM" (R255 G46 B0 W173 $co\pi P=LInE$ )<br>(R255 G109 B0 W210 $co\pi P=9uRd$ )             |
|           |             | 156..235          | RESERVED   |
|           |             | 236..237          | RGB RAINBOW COLOR MIXING: SPEED 1 (6 SEC.)   |
|           |             | 238..239          | RGB RAINBOW COLOR MIXING: SPEED 2 (15 SEC.)  |
|           |             | 240..241          | RGB RAINBOW COLOR MIXING: SPEED 3 (30 SEC.)  |
|           |             | 242..243          | RGB RAINBOW COLOR MIXING: SPEED 4 (45 SEC.)  |
|           |             | 244..245          | RGB RAINBOW COLOR MIXING: SPEED 5 (60 SEC.)  |
|           |             | 246..247          | RGB RAINBOW COLOR MIXING: SPEED 6 (120 SEC.)   |
|           |             | 248..249          | RGB RAINBOW COLOR MIXING: SPEED 7 (150 SEC.)   |
|           |             | 250..255          | RGB RAINBOW COLOR MIXING: SPEED 8 (180 SEC.)   |

| <i>Ch</i> | <i>Name</i>   | <i>DMX levels</i> |  |
|-----------|---|-------------------|--|
| 10        | FUNCTIONS (staying on desired option for 5 seconds) | 0..9              | No function  |
|           |   | 10..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 ( $\gamma$ ) QUADRATIC (DEFAULT)  |
|           |   | 75..84            | GAMMA CORRECTION ( $\gamma$ ) 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..134          | RESERVED   |
|           |   | 135..144          | BOOST ON (DEFAULT)   |
|           |   | 145..154          | BOOST OFF  |
|           |   | 155..164          | DISPLAY STAND-BY OFF (DEFAULT)   |
|           |   | 165..174          | DISPLAY STAND-BY ON  |
|           |   | 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 – CHPR (PROGRAM STEPS 01..16)<br>WAIT and SPEED time selectable via NDMX > CHPR menu               |
|           |   | 183..184          | NO DMX ACTION – CUSTOM (RGBW, CCT, Dimmer, Zoom values selectable via NDMX > CUSTOM menu or via RDM Custom PIDs) |
|           |   | 185..194          | RESERVED   |
|           |   | 195..204          | RESERVED   |
| 205..214  | RESERVED  |                   |  |
| 215..224  | RESERVED  |                   |  |
| 225..234  | RESERVED  |                   |  |
| 235..239  | FAN STANDARD MODE                                   |                   |  |
| 240..244  | FAN SILENT MODE (DEFAULT)                           |                   |  |
| 245..248  | ZOOM STANDARD MODE                                  |                   |  |
| 249..252  | ZOOM SILENT MODE (DEFAULT)                          |                   |  |

| <i>Ch</i> | <i>Name</i>   | <i>DMX levels</i> |   |
|-----------|---|-------------------|---|
| 10        | FUNCTIONS (staying on desired option for 5 seconds) | 253..255          | SET DEFAULTS VALUES FOR FUNCTIONS:<br>SMOOTH = 4 (100 ms)<br>GAMMA CORRECTION ( $\gamma$ ) = QUADRATIC<br>OUTPUT FREQUENCY = 610 Hz<br>BOOST = ON<br>DISPLAY STAND-BY = OFF<br>NO DMX ACTION = KEEP LAST DMX<br>FAN MODE = SILENT<br>ZOOM MODE = SILENT |
| 11        | ZOOM  | 0..255            | Linear zoom from narrow to wide   |
| 12        | RESET   | 0..9              | No function   |
|           |   | 10..255           | Zoom motor reset (after 3 s)  |

## 5 CHANNELS MODE

- 1 RED
- 2 GREEN
- 3 BLUE
- 4 WHITE
- 5 ZOOM

| <i>Ch</i> | <i>Name</i> | <i>DMX levels</i> |                                    |
|-----------|-------------|-------------------|------------------------------------|
| 1         | RED         | 0..255            | Proportional color from min to max |
| 2         | GREEN       | 0..255            | Proportional color from min to max |
| 3         | BLUE        | 0..255            | Proportional color from min to max |
| 4         | WHITE       | 0..255            | Proportional color from min to max |
| 5         | ZOOM        | 0..255            | Linear zoom from narrow to wide    |

## 7 CHANNELS MODE

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

| <i>Ch</i> | <i>Name</i> | <i>DMX levels</i> |   |
|-----------|-------------|-------------------|---|
| 1         | RED         | 0..255            | Proportional color from min to max                                |
| 2         | GREEN       | 0..255            | Proportional color from min to max                                |
| 3         | BLUE        | 0..255            | Proportional color from min to max                                |
| 4         | WHITE       | 0..255            | Proportional color from min to max                                |
| 5         | 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 (RGBW, CCT, Macro, Dimmer, Dimmer Fine active)      |
|           |             | 205..229          | Independent random strobe (Dimmer, Dimmer Fine active)            |
|           |             | 230..235          | Single flash 30 ms (RGBW, CCT, Macro, Dimmer, Dimmer Fine active) |
|           |             | 236..255          | Open  |
| 6         | DIMMER      | 0..255            | Proportional dimmer from min to max                               |
| 7         | ZOOM        | 0..255            | Linear zoom from narrow to wide                                   |

**“FINE” MODE (11 CHANNELS)**

- 1 RED**
- 2 RED FINE**
- 3 GREEN**
- 4 GREEN FINE**
- 5 BLUE**
- 6 BLUE FINE**
- 7 WHITE**
- 8 WHITE FINE**
- 9 DIMMER**
- 10 DIMMER FINE**
- 11 ZOOM**

| <i>Ch</i> | <i>Name</i> | <i>DMX levels</i> |                                     |
|-----------|-------------|-------------------|-------------------------------------|
| 1         | RED         | 0..255            | Proportional color from min to max  |
| 2         | RED FINE    | 0..255            | Proportional color from min to max  |
| 3         | GREEN       | 0..255            | Proportional color from min to max  |
| 4         | GREEN FINE  | 0..255            | Proportional color from min to max  |
| 5         | BLUE        | 0..255            | Proportional color from min to max  |
| 6         | BLUE FINE   | 0..255            | Proportional color from min to max  |
| 7         | WHITE       | 0..255            | Proportional color from min to max  |
| 8         | WHITE FINE  | 0..255            | Proportional color from min to max  |
| 9         | DIMMER      | 0..255            | Proportional dimmer from min to max |
| 10        | DIMMER FINE | 0..255            | Proportional dimmer from min to max |
| 11        | ZOOM        | 0..255            | Linear zoom from narrow to wide     |

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DTS plants in Italy



**ISO 9001:2008**

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to the ISO 9001:2008 standard

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**05171323**