

Nick NRG 501



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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

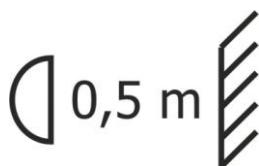
THIS SYMBOL INDICATES THE MAXIMUM OPERATING AMBIENT TEMPERATURE



THIS SYMBOL MEANS “SUITABLE FOR INDOOR USE ONLY”



THIS SYMBOL MEANS “SUITABLE FOR MOUNTING ON NORMALLY FLAMMABLE SURFACES”



THIS SYMBOL INDICATES THE MINIMUM DISTANCE FROM THE ILLUMINATED OBJECTS



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



Risk Group 2

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 device is not for household 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.



WARNING!

NEVER EXPOSE THE FRONT LENS TO SUNLIGHT FROM ANY ANGLE TO AVOID DAMAGE OF HEAD INTERNAL PARTS.

Front lens could become powerful magnifying glass if exposed towards the sun or any strong artificial light source; this can cause damage of head internal parts, even for few seconds and even when the unit is off.

The last command before switch off: point the front lens down towards the ground.

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.LDR009.FFP NICK NRG 501 FC FPR Black finishing

LED Technology

7 x FULL RGBW LEDs

Optical group

3,5°- 52° linear motorized zoom with high-efficiency optical system
Uniform projection on surfaces, from very wide Wash to PC Beam

Color generation

16 million colours

Wide palette of pure uniform whites with variable linear color temperature (2700K – 8000K)

Control

Multi-function OLED graphic color display + 4 soft keys:
control / management / monitoring of the main parameters
Controlled via DMX 512 and RDM standard digital communication protocols
Internal updatable operating system

DMX

20 DMX channels

Pan & Tilt

‘FPR’ system (DTS patent)
Pan: limitless rotation, in both directions
Tilt 217°
16-bit movement resolution
Selectable speed ranges

Power supply

Full-range 100-240Vac 50-60 Hz
Power consumption: 125W

Connections

DMX: XLR 3-pole In/Out and 5-pole In/Out panel connectors
Power supply: PowerCON In/Out panel connectors

Internal safety devices

Overvoltage and overtemperature circuit protection

Operating ambient temperature

-10° / 40°

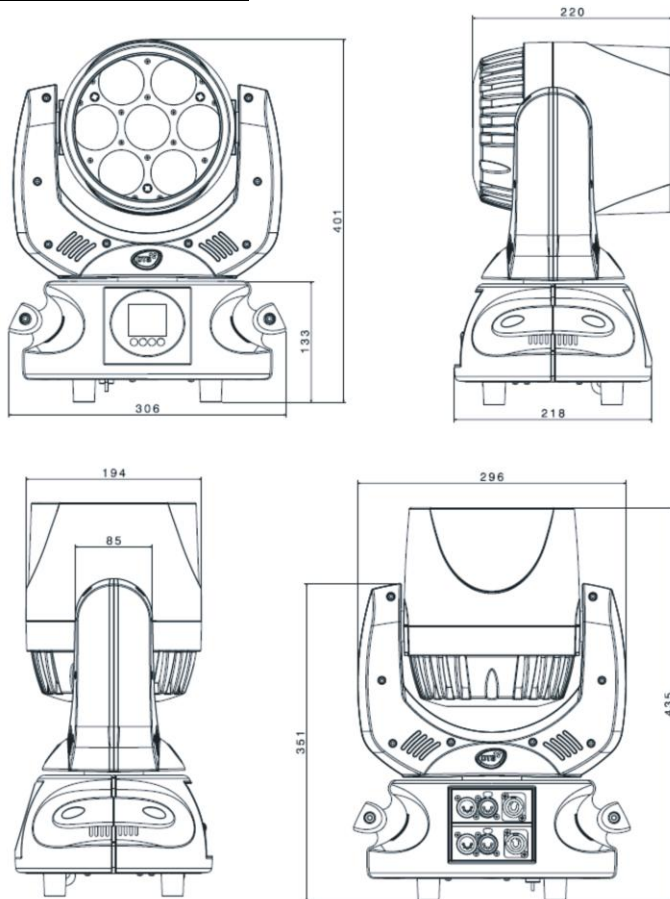
Weight

8,9 Kg

International certifications

CE certification
LED Class: Class 2 LED product

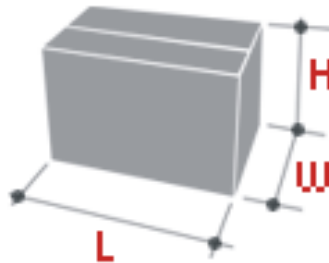
5 - DIMENSIONS



Packaging Dimensions (LxWxH)

460 x 370 x 420 mm

Weight: 10,9 Kg



6- ACCESSORIES

As standard

- 1 x PowerCON female cable connector (code 0520P014)
- 1 x XLR 5 Pins female cable connector (code 0508B147)
- 1 x XLR 5 Pins male cable connector (code 0508B148)
- 1 x G-QUICK clamp with "Fast Lock" connection 1/4 turn (code 0521A014)
- User's manual

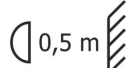
Optional (on request)

- Flightcase for 6 units (code 0521C062.1)
- DTS Dongle Firmware Uploader (code 03.LA.206)
- Aliscap clamp for tube diameter 50 mm (Max load 100 Kg) (code 0521A008)
(indicated for any kind of loads vertical / horizontal)
- Professional Quick trigger clamp (Max load 100 Kg) (code 0521A037) (not indicated for horizontal load)
- G60 "C" Clamp (Max load 50 Kg) (code 0521A004) (not indicated for horizontal load)
- Omega bracket with "Fast Lock" connection 1/4 turn (code 02K00467)
- Safety cable 3 mm x 60 cm (Max load 60 Kg) (code 0521A010)

7- IMPORTANT SAFETY INFORMATION

7.1 Fire prevention:



- It is permissible to place the unit on normally flammable surfaces. Suitable for mounting on normally flammable materials surfaces greater than 200°C with some combustion time lag.
- Minimum distance from the closest illuminable surface: 0,5 m. 
- Replace any blown or damaged fuses only with those of identical value (3.15AT). Refer to the wiring diagram if there is any doubt.
- Connect the projector to mains power via a thermal magnetic circuit breaker.

7.2 Prevention of electric shock:



- High voltage is present inside the unit. Unplug the unit prior to performing any function which involves touching the inside of the moving head.
- The level of technology inherent in the NICK NRG 501 requires the assistance of specialised personnel for all servicing. Please refer to an authorised DTS service centre.
- A good earth connection is essential for proper functioning of the projector.
- Never connect the unit without proper earth connection.
- The fixture should be located in places with a good air ventilation.

7.3 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 projector should always be installed with bolts, clamps and other tools that are capable of supporting the weight of the unit.
 - Always use a second safety cable to sustain the weight of the unit in case of the failure of the main fixing point.
 - The external surface of the unit, at various points, may exceed 50°C. Never handle the unit until at least 5 minutes have elapsed since the projector was turned off.
 - Never install the fixture in an enclosed area lacking sufficient air flow.
- The ambient temperature should not exceed 40°C. t_a 40°C



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



- The projector is classified as an ordinary appliance and its protection level against the penetration of solid and liquid objects is IP 20.

Suitable for indoor use only.



7.5 Waste Electrical and Electronic equipment (WEEE) directive:



- The machine, 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.

8- VOLTAGE AND FREQUENCY

NICK NRG 501 operates at 100-240Vac 50-60 Hz.

9- INSTALLATION

NICK NRG 501 may be either floor or ceiling mounted.

For floor mounting installations, the NICK NRG 501 is supplied with four rubber mounting feet on the base.

For ceiling mounted installations, we recommend the use of appropriate clamps to fix the unit to the mounting surface.

The supporting structure from which the unit is hung should be capable of bearing the weight of the unit, as should any clamps used to hang it. The structure should also be sufficiently rigid so as not to move or shake whilst the NICK NRG 501 is moving.

Four 1/4 turn Fast Locks connections placed in the base of the unit allow to hang the NICK NRG 501 by using the Fast Lock "C" clamps provided in the box.



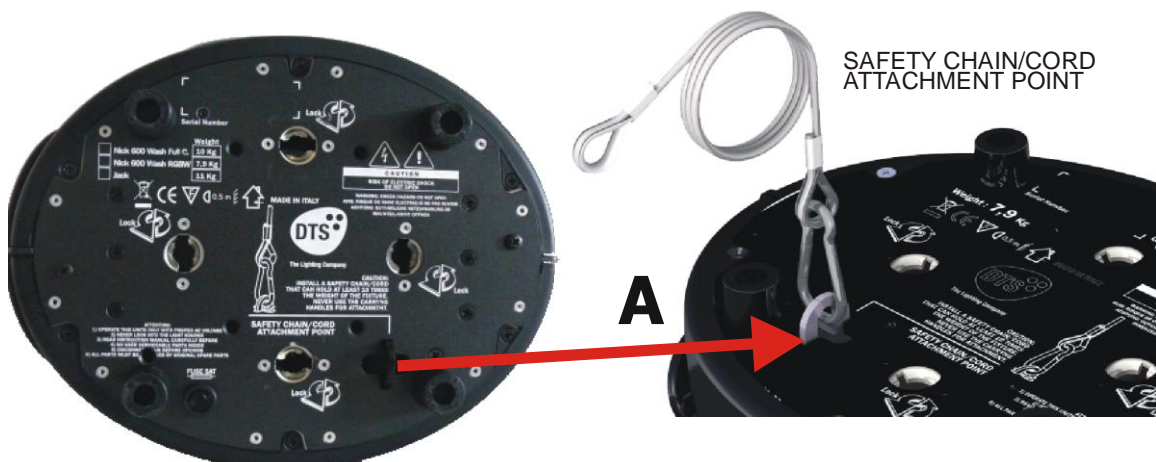
9.1- Safety cable



We recommend the use of a safety cable or chain connected to the NICK NRG 501 and to the suspension truss in order to avoid the fixture accidentally falling should the main fixing point fail.

Make sure that the iron cable or chain can bear the weight of the entire unit.

You may attach the safety chain/cord to the attachment point (A) located on the base of the fixture, as shown in the picture below.



9.2 Protection against liquids



The projector contains electric and electronic components which should under no circumstances come into contact with oil, water or any other liquid. The proper unit functioning would be compromised should this occur.

9.3- Movement

Pan: limitless rotation, in both directions; Tilt 217°.

Do not place any obstructions in the path of the projector's movement.



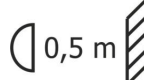
WARNING

Do not place any object in the path of the projector's movement



9.4- Risk of fire

Each fixture produces heat and must be installed in a well-ventilated place. It is permissible to place the unit on normally flammable materials surfaces. Suitable for mounting on normally flammable materials surfaces greater than 200°C with some combustion time lag.

Minimum distance from the object being illuminated is 0,5 m. 



9.5- Forced ventilation

You will note, on inspection, that the unit features various air inlets and cooling fans. These should, under no circumstances, be blocked or obstructed whilst the projector is in operation. Doing so could cause the fixture to seriously overheat thereby compromising its proper operation.

9.6- Ambient temperature

The projector should never be installed in places that lack a constant air flow.

The ambient temperature should not exceed 40°C. t_a 40°C

10- MAINS CONNECTION

NICK NRG 501 operates at 100-240Vac 50-60 Hz.

Prior to connecting the unit to your mains supply, ensure that the model in your possession correctly matches the mains supply available.

For connection purposes, ensure that your plug is capable of supporting 1 amp at 230Vac or 2 amps at 90Vac each unit connected.

Strict adherence to regulatory norms is strongly recommended.

MAINS OUTPUT 100-240Vac 50-60 Hz (16A Max)

max 16 NICK NRG 501 units @ 230Vac

max 8 NICK NRG 501 units @ 90Vac



MAINS INPUT 100-240Vac 50-60 Hz



FUSE 3,15AT

10.1- Protection



The use of a thermal magnetic circuit breaker is recommended for each NICK NRG 501.

11- DMX SIGNAL CONNECTION

The unit operates using the digital DMX 512 signal.

Connection between the mixer and the projector or between projectors must be carried out using a two pair screened \varnothing 0.5 mm cable and a XLR 5 or 3 pins connector.

Ensure that the conductors do not touch each other.

Do not connect the cable ground to the XLR chassy.

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 projector to the DMX IN plug of the second one.

This way, all the projectors are cascade connected.

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

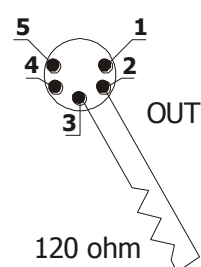
- DMX signal not present
- DMX address not valid
- DMX reception problem



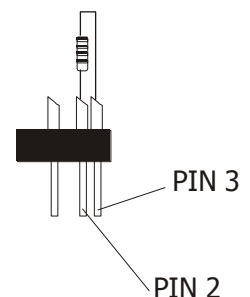
For Installations where long distance DMX cable connections are needed, we suggest to use a DMX terminator.

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



11.1-DMX Addresses

NICK NRG 501 can be controlled with 20 DMX channels.

In order to use the unit in 20 channels, set the following addresses on the mixer:

Projector 1	A001	
Projector 2	A021	If you want to select the next projector, just add "20"
Projector 3	A041	
.....	A....	
projector 6	A101	

11.2-Selecting the DMX address

- 1) Press the UP-DOWN key until you reach the required DMX channel. 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 setted to the new DMX address.

TRICKS:

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

12- FIRMWARE UPDATING

To update the firmware release of the NICK NRG 1201 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 NICK NRG 1201 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.

13- DISPLAY FUNCTIONS



DISPLAY FUNCTIONS

The NICK NRG 501 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 DTS setting 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.

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

FIRMWARE RELEASE	1.44
RDM Device Model ID	0x0D1B
DMX Personality ID	0x01 "20CH With FAR"

13- DISPLAY FUNCTIONS



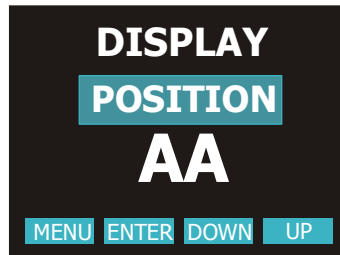
Display



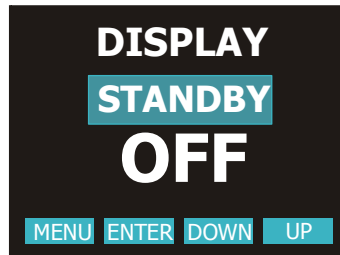
DISPLAY POSITION / STAND-BY

Display Position:
Reverses display's reading depending on the mounting position (on the ground or suspended).

Display Stand-by:
To turn off the display (after 5 seconds) or leave it always on.



Display Position
AA = ON THE GROUND (Default)
VV = SUSPENDED



Display Standby
OFF = Display Standby disabled (Default)
ON = Display goes OFF after 5 seconds



DMX Set

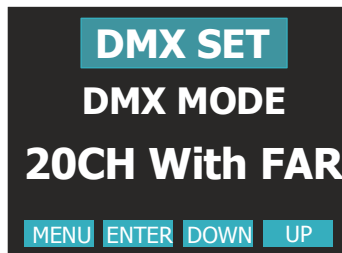


DMX MODE / MACRO / DIMMER DELAY

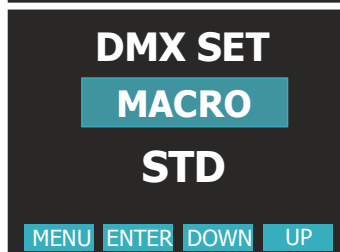
DMX Mode
20 channels

MACRO
Macro Mode:
STD = Standard (Default)
EXT = Extended; enable rainbow effects on Macro channel (DMX ch 16)

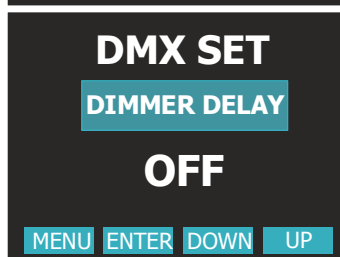
DIMMER DELAY
Dimmer channel reaction to DMX.
Range: OFF / 0.1 - 2.0 s
Default: OFF



DMX Mode
20 channels



MACRO
STD = Standard mode enabled (Default)
EXT = Extended; enable rainbow effects on Macro channel (DMX ch 16)



DIMMER DELAY
Range: OFF / 0.1 - 2.0 s
Default = OFF (No Delay)



13- DISPLAY FUNCTIONS



LED



SMOOTH VALUE

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

OFF = Instant response (default)

1 = 50 ms smooth response

20 = 1000 ms smooth response

GAMMA CORRECTION

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

OUTPUT FREQUENCY

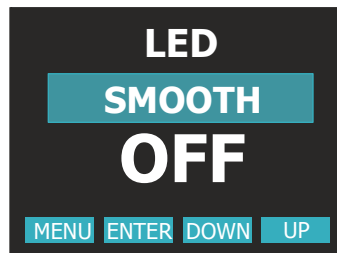
This menu allows to adjust the PWM frequency value (Hz) in order to reduce flickering in the process of your camera recordings

BOOST

This menu allows to increase the LED's current from 70% to 100% to 1000 mA

CTC COMPATIBILITY

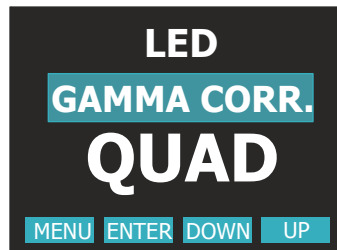
This menu allows to have the same "Whites" color temperature on the DMX channel 15 "CTC" between NICK NRG 501 and other DTS range LED units.



SMOOTH

Range = OFF / 1- 20

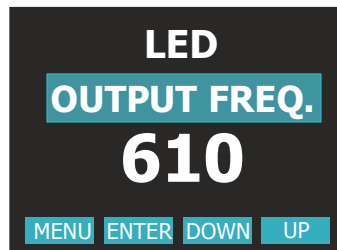
Default = OFF



GAMMA CORRECTION

Linear = Linear current output

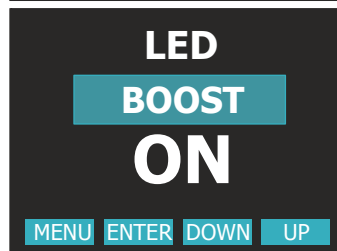
Quadratic = Linear light output (default)



OUTPUT FREQUENCY

Range = 610 Hz – 20 KHz

Default = 610 Hz



BOOST

Default = ON



CTC COMPATIBILITY

Default = OFF

13- DISPLAY FUNCTIONS



AUTO



AUTOMATIC MODE
Automatic demo game
without DMX controller

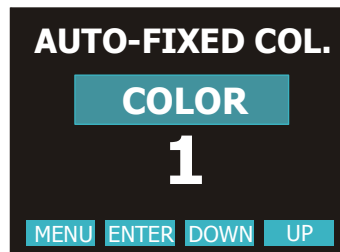
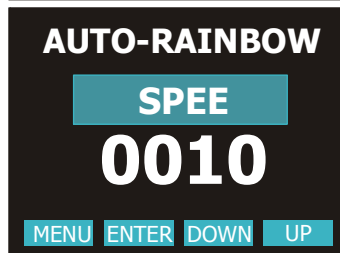
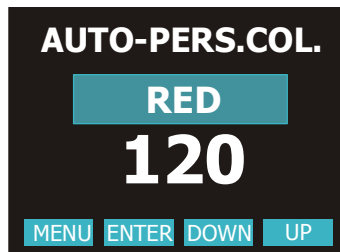
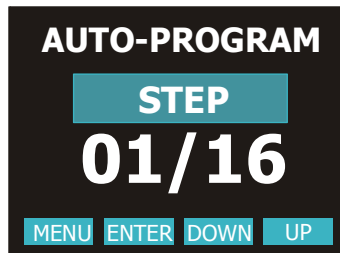
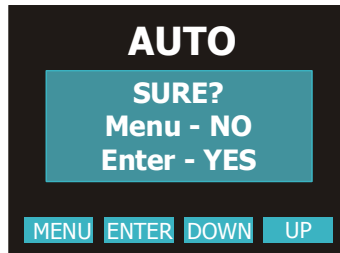
STEP 01/16
Chase with 16 steps previously
created in REC MODE
Speed time, Wait time, Dimmer, Pan,
Tilt and Zoom values selectable by user.

PERSONAL COLOURS
RGBW, Dimmer, Shutter, Pan, Tilt and
Zoom values selectable by user.

RAINBOW
Rainbow colours effect.
Speed time, Dimmer, Shutter, Pan,
Tilt and Zoom values selectable by user.

FIXED COLOURS
Sixteen Colour Macros as
on "MACRO" channel.
Dimmer, Shutter, Pan, Tilt and
Zoom values selectable by user.

WHITE MACROS
Sixteen macros for White
color (from 2700K to 8000K)
Dimmer, Shutter, Pan, Tilt and
Zoom values selectable by user.



By setting all the units
connected to the MASTER
to DMX address 1,
them will be synchronized
with the Master unit
following the chase
selected on it, including
TIME, WAIT, Pan&Tilt and
Zoom position of the
MASTER unit.

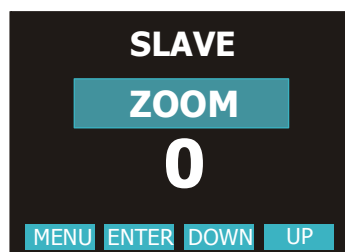
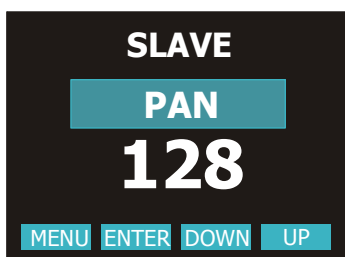


13- DISPLAY FUNCTIONS



SLAVE MODE SETTING

This menu allows to set the NICK NRG 501 as slave unit. DMX signal must be present from MASTER unit (set in AUTO MODE) in order to ran the units in SLAVE mode. By setting all the SLAVE units connected to the MASTER, to DMX address 1, them will be synchronized with the Master unit following the chase selected on it, but running their own Pan&Tilt and Zoom position.



The SLAVE unit receive DMX signal from the MASTER unit. By setting all the SLAVE units connected to the MASTER, to DMX address 1, them will be synchronized with the Master unit following the chase selected on it, but running their own Pan&Tilt and Zoom position.



13- DISPLAY FUNCTIONS



WIRELESS DMX

Wireless DMX enabled / disabled.
By activating WDMX MODE, it will be possible to control NICK NRG 501 via D.T.S. ANTENNA Wireless DMX Transmitter (cod. 03.E1271 – 03.E1296 – 03.E12101).

Wireless DMX Receiver Kit (Cod. 03.LA.126) on NICK NRG 501 is available on request.



WIRELESS DMX SYSTEM DISABLED (Default)



WIRELESS DMX SYSTEM ENABLED



UNLINK = LOG OUT



Logging on NICK NRG 501 (WIRELESS DMX must be enabled on the unit).

To log on the NICK NRG 501 in the WIRELESS system simply press and quickly release the function button on the transmitter .

The transmitter will start flashing rapidly red/green scanning for new free receivers / NICK NRG 501 units. When a NICK NRG 501 logs on to the transmitter the LINK green light on transmitter starts to flash rapidly.

After approximately 10 seconds the transmitter will jump back to normal mode and continue transmitting data. The NICK NRG 501 now try to synchronize to the transmitter.

When synchronized to the transmitter, 2 different modes are possible:

1. Antenna transmitter has detected and transmits a DMX signal, in this mode a solid green light is seen on the transmitter and solid display is seen on NICK NRG 501.
2. No DMX signal connected, the Antenna transmitter will flash red/green; display blinking on NICK NRG 501.

To log off NICK NRG 501 from a transmitter simply select UNLINK function under WIRELESS DMX MENU and press ENTER.

When NICK NRG 501 is logged off the display is blinking, meaning its available for log in on a new transmitter.

Logging out a NICK NRG 501.

Select UNLINK function under WIRELESS DMX MENU and press ENTER.

When NICK NRG 501 is logged off the display is blinking, meaning its available for log in on a new transmitter.

Logging out all NICK NRG 501 linked to a transmitter.

Press and hold the function button of the transmitter for about 3 seconds. When the display is blinking on NICK NRG 501, it mean that the units are logged out.

Transmitter, Status LED.

Flashing red/green, no dmx connected.

Solid green, dmx signal detected and transmitted.

Fast flashing red/green, log in mode (every free NICK NRG 501 unit, not logged in to any other transmitter, will be logged on)

NICK NRG 501 Status.

Display blinking, not logged on to a transmitter (free).

Solid display, logged on to a transmitter and receiving dmx data.

13- DISPLAY FUNCTIONS



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.
Dimmer level, Pan&Tilt and Zoom values selectable by user.



EMERGENCY
Disabled = Default



EMERGENCY
Enabled



WHITE (1-16)
Default = WHITE 1



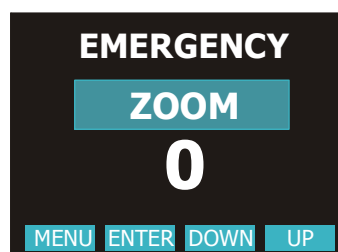
DIMMER
Default = 255



PAN
Default = 128



TILT
Default = 128



ZOOM
Default = 0

13- DISPLAY FUNCTIONS



DEFAULT SETTING
To restore default settings

DEFAULT SET

MENU ENTER DOWN UP

DEFAULT SET

SURE?
Menu - NO
Enter - YES

MENU ENTER DOWN UP



TEMPERATURE
Unit temperature

TEMPER. °C

TEMPER. °C

028.7

MENU ENTER DOWN UP



LIFE TIME
This menu show the total unit life
time and the RGBW life time

TIME

TIME

UNIT

13 Hr - 08 min

MENU ENTER DOWN UP

TIME

RED

0 Hr - 08 min

MENU ENTER DOWN UP

TIME

GREEN

0 Hr - 08 min

MENU ENTER DOWN UP

TIME

BLUE

0 Hr - 08 min

MENU ENTER DOWN UP

TIME

AMBER

0 Hr - 08 min

MENU ENTER DOWN UP



13- DISPLAY FUNCTIONS



SYSTEM



PAN INVERSION / TILT INVERSION /
PAN SPEED / TILT SPEED /
FPR DIRECTION / STUDIO MODE /
LED FAN MAX SPEED / BASE FAN
MAX SPEED / RESET BY DMX

PAN INVERSION

This menu allows to set the Pan movement. Normal or Reverse.

TILT INVERSION

This menu allows to set the Tilt movement. Normal or Reverse.

PAN SPEED

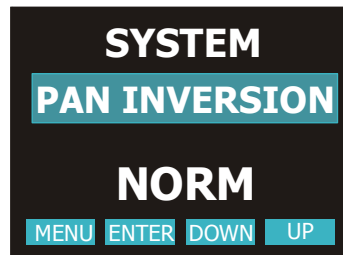
Pan Speed control (1-5)

TILT SPEED

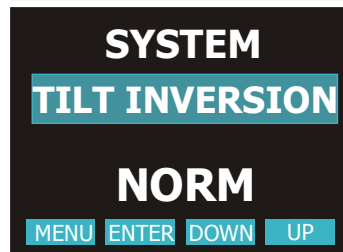
Tilt Speed control (1-5)

FPR DIRECTION

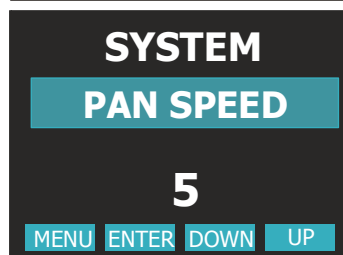
This menu allows to set the FPR direction to have compatibility with other DTS range LED units. Normal or Compatibility mode.



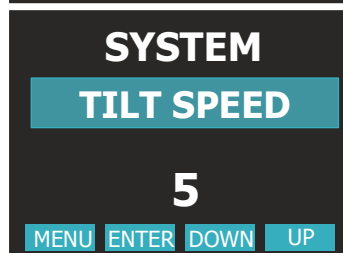
PAN INVERSION
Default = NORM



TILT INVERSION
Default = NORM



PAN SPEED CONTROL
Default = 5



TILT SPEED CONTROL
Default = 5



FPR DIRECTION
Default = NORMAL MODE

13- DISPLAY FUNCTIONS



SYSTEM



STUDIO MODE

This menu allows to decrease the Speed of the zoom motors to have a unit low noise operation.

LED FAN MAX SPEED

This menu allows to select the LED fan speed.

BASE FAN MAX SPEED

This menu allows to select the base fan speed.

RESET BY DMX

This menu allows to enable / disable the Motors reset control (Pan&Tilt and Zoom) via DMX.

SYSTEM

STUDIO MODE

OFF

MENU ENTER DOWN UP

STUDIO MODE

ON = Silent operation
OFF = Zoom motor maximum speed (Default)



SYSTEM

LED FAN MAX SP.

100%

MENU ENTER DOWN UP

LED FAN MAX SPEED

Range: OFF / 50% - 100%
Default = 100%

SYSTEM

BASE FAN MAX SP.

75%

MENU ENTER DOWN UP

BASE FAN MAX SPEED

Range: OFF / 50% - 100%
Default = 75%

SYSTEM

RESET BY DMX

ENAB

MENU ENTER DOWN UP

RESET BY DMX

Enable: Motors reset enabled via DMX (Default)
Disabled: Motors reset disabled via DMX
Now: Instant motors reset.



SOFTWARE



SOFTWARE

Motors board software version and LED driver boards software version

SOFTWARE

MOTORS

0D1B03A3-FPR
v1.44 Feb 23 2017

MENU ENTER DOWN UP

MOTORS BOARD

SOFTWARE VERSION



SOFTWARE

LED

N501LED v102

MENU ENTER DOWN UP

LED DRIVER BOARD

SOFTWARE VERSION

14- PERIODIC CLEANING

Front lenses Glass

The dust can reduce the luminous output substantially.

Regularly clean the front lenses glass using a soft cotton cloth, dampened with a specialist glasses cleaning solution.

Fans and air passages

The fans and air passages must be cleaned approximately every 6 weeks.

This periodic cleaning will depend of course, on the conditions in which the projector is operating.

Suitable instruments for performing this type of maintenance are a brush and a common vacuum cleaner or an air compressor.

If necessary, clean the fans and air passages more frequently.

15- PERIODIC CONTROLS



Mechanical parts

Periodically check all mechanical parts and the gaskets, replacing them if necessary.

Electrical components

Check all electrical components for correct earthing and proper attachment of all connectors, refastening if necessary.

Attention: Disconnect mains power prior to removing the projector housing.



Fuse replacement

Locate the fuse, which protect the electronics, in the base of the NICK NRG 501. Using a multimeter, test the condition of the fuse, replacing it with one of equivalent type (3.15AT) if necessary.

Attention: Disconnect mains power prior to removing the projector housing.



16- DMX PROTOCOL

FIRMWARE RELEASE	1.44
RDM Device Model ID	0x0D1B
DMX Personality ID	0x01 “20CH With FAR”

20 CHANNELS MODE

1	PAN
2	PAN FINE
3	TILT
4	TILT FINE
5	PAN-TILT SPEED
6	FPR MODE
7	RESERVED / NO FUNCTION
8	SHUTTER
9	DIMMER
10	RED
11	GREEN
12	BLUE
13	WHITE
14	WHITE PRE-PROGRAMMED
15	CTC
16	MACRO
17	FUNCTION
18	ZOOM
19	ZOOM SPEED
20	RESET

DMX CHANNEL	1	Parameter: PAN
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DMX CHANNEL	2	Parameter: PAN FINE
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DMX CHANNEL	3	Parameter: TILT
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DMX CHANNEL	4	Parameter: TILT FINE
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DMX CHANNEL	5	Parameter: PAN-TILT SPEED
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-127					PAN-TILT speed from max to min
128-247					PAN-TILT Max speed
248-255					PAN-TILT Medium speed

DMX CHANNEL	6	Parameter: FPR MODE
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-010					Position mode 540° (standard path)
011-020					Position mode 360° (1 turn)
021-030					Position mode 720° (2 turns)
031-040					Position mode 1080° (3 turns)
041-050					Position mode 1440° (4 turns)
051-060					Position mode 1800° (5 turns)
061-070					Position mode 2160° (6 turns)
071-080					Position mode 2520° (7 turns)
081-090					Position mode 2880° (8 turns)
091-100					Position mode 3240° (9 turns)
101-110					Position mode 3600° (10 turns)
111-120					Position mode 360° smart path
121-182					Forward spin rotation speed from max to min
183-193					Stop
194-255					Reverse spin rotation speed from min to max

DMX CHANNEL	7	Parameter: RESERVED / NO FUNCTION
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					RESERVED / NO FUNCTION

DMX CHANNEL	8	Parameter: SHUTTER
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-009					Black-out
010-019					Open
020-029					Black-out
030-119					Strobe (from 3.27 s to 30 ms)
120-149					Pulse up (from 42.6 s to 120 ms)
150-179					Pulse down (from 42.6 s to 120 ms)
180-204					Random strobe (Dimmer, Red, Green, Blue, White channels active)
205-229					Full independent Random Strobe (Dimmer, Red, Green, Blue, White channels disabled)
230-255					Open

DMX CHANNEL	9	Parameter: DIMMER
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Proportional dimmer from min to max

DMX CHANNEL	10	Parameter: RED
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Proportional colour from min to max

DMX CHANNEL	11	Parameter: GREEN
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Proportional colour from min to max

DMX CHANNEL	12	Parameter: BLUE
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Proportional colour from min to max

DMX CHANNEL	13	Parameter: WHITE
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Proportional colour from min to max








DMX CHANNEL	14	Parameter: WHITE PRE-PROGRAMMED
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-055	23				No Function
056-105	80				Full (RGBW at Full)
106-155	130				DTS White
156-205	180				Custom White Create (RGBW levels selectable by DMX)
206-255	230				CTC White (Channel 15 "CTC" enabled)

DMX CHANNEL	15	Parameter: CTC
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
IF CHANNEL 14 WHITE PRE-PROGRAMMED = CTC White (DMX range value 206 – 255)					
000-255					Linear control temperature correction. 0 = 2700K / 255 = 8000K

DMX CHANNEL		16	Parameter: MACRO			
IF:  Menu  Up-Down DMX SET  ENTER  Up-Down MACRO  ENTER  Up-Down STD  ENTER (Please refer to page 15 for details)						
000-014						No Function
015-029						Macro 1
030-044						Macro 2
045-059						Macro 3
060-074						Macro 4
075-089						Macro 5
090-104						Macro 6
105-119						Macro 7
120-134						Macro 8
135-149						Macro 9
150-164						Macro 10
165-179						Macro 11
180-194						Macro 12
195-209						Macro 13
210-225						Macro 14
226-239						Macro 15
240-255						Macro 16

DMX CHANNEL		16	Parameter: MACRO			
IF:  Menu  Up-Down DMX SET  ENTER  Up-Down MACRO  ENTER  Up-Down EXT  ENTER (Please refer to page 15 for details)						
000-014						No Function
015-024						Macro 1
025-034						Macro 2
035-044						Macro 3
045-054						Macro 4
055-064						Macro 5
065-074						Macro 6
075-084						Macro 7
085-094						Macro 8
095-104						Macro 9
105-114						Macro 10
115-124						Macro 11
125-134						Macro 12
135-144						Macro 13
145-154						Macro 14
155-164						Macro 15
165-174						Macro 16
175-184						Rainbow Speed 1 (6 Sec.)
185-194						Rainbow Speed 2 (15 Sec.)
195-204						Rainbow Speed 3 (30 Sec.)
205-214						Rainbow Speed 4 (45 Sec.)
215-224						Rainbow Speed 5 (60 Sec.)
225-234						Rainbow Speed 6 (120 Sec.)
235-244						Rainbow Speed 7 (150 Sec.)
245-255						Rainbow Speed 8 (180 Sec.)

DMX CHANNEL	17	Parameter: FUNCTION
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
IF CHANNEL 14 WHITE PRE-PROGRAMMED = DMX range value 156 – 205					
000-079					Custom White Recall
080-160					Custom White Create (Enable Custom White Creation)
161-255					Custom White Store (Store the Custom White created)

DMX CHANNEL	18	Parameter: ZOOM
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-255					Linear Zoom from Narrow to Wide

DMX CHANNEL	19	Parameter: ZOOM SPEED
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-127					Zoom speed from max to min
128-247					Zoom max speed
248-255					Zoom medium speed

DMX CHANNEL	20	Parameter: RESET
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DMX range Value	Mid Point DMX value	Move Range (degrees)	Mode	Option	Function
000-015					No function
016-255					Total Reset after 3 s

NOTES

PROUDLY
MADE IN ITALY



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



ISO 9001:2008

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

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