

Nano*Pix 1440/2880 HP RGB+WW+CW User Manual



Product Description

Thank you for choosing this LDDE Nano*Pix 1440 HP / 2880 HP fixture. The Nano*Pix LED - Softlight battens present a milestone in the area of modern lighting for stage, events and studio use. The revolutionary LED-Softlight technology is the ideal solution to substitute conventional battens using RGBW fluorescent tubes. The linear design integrates high performing LEDs in red, green, blue, warm white and cool white. The packing density of 1440 (or 2880) LED's facilitates an extremely even distribution of light at an emission angle of 150° and countless colour combinations add to the impressive performance features.

Features

- output of up to 16.000 Lumen
- RGB+WW+CW colour mixing system
- high-performance LEDs with density of 1440 or 2880 LED-pixels
- high colour rendering quality of CRI >93
- 150° emission beam
- continuous colour temperature calibration from 2700°K - 9000°K
- perfect dimming qualities due to 16bit resolution
- Suitable for HDTV (flicker free)
- multiple control modes
- Quiet-Mode for use in theatre and TV
- Multicore Power/Data connector system
- compact dimensions (610mm and 1206mm)
- durable continuous-cast housing (aluminium)

Scope of Delivery

The following items are included in the delivery of the Nano*Pix 1440 HP / 2880 HP:

1 x LED Softlight batten Nano*Pix 1440 HP or 2880 HP

1 x Manual

Safety Guidelines



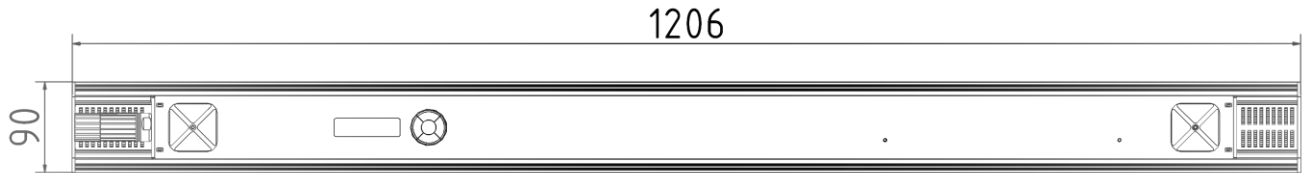
- Please read these safety guidelines carefully before you take the Nano*Pix 1440 HP / 2880 fixture into service.
 - Check the suitability of the product for the intended use.
 - The Nano*Pix 1440 HP / 2880 HP fixture is not suitable for outdoor use (IP20).
 - Never expose your eyes to direct beam of the LED light source
- Do not use optical devices or other means of focussing the LED beam apart from products supplied for this purpose by LDDE
 - Do not attempt to repair or dismantle the Nano*Pix 1440 HP / 2880 HP fixture: Opening and removing the internal covers can result in electrocution or other serious injuries.
 - In case of product failure, please contact LDDE or an authorised LDDE-dealership
 - Do not touch the fixture while it is in use.
 - Disconnect the fixture from the power supply before re-positioning and cleaning
 - Protect the Nano*Pix 1440 HP / 2880 HP fixture from shocks and impacts.
 - Protect the fixture from moisture and water and avoid contact with moist or wet appliances.
 - Relative air humidity during operation should be between 20 % and 85 %.
 - Ensure that the fixture is not covered and adequate ventilation is in place.
 - Do not insert objects into openings of the housing that are connected to live parts as this can lead to short circuiting. Danger of electric shock and risk of fire.
- The fixture is to be removed from service if:
 - there is visible damage
 - parts have become loose
 - there is visible damage to cable connections
 - LDDE products are manufactured and delivered in concordance with EU directive 2002/96/EU of the European Parliament and the Council on Waste Electrical and Electronic Equipment (WEEE). Help protect the environment and dispose of used products at your local recycling station. Your dealership can offer further advice on correct disposal.

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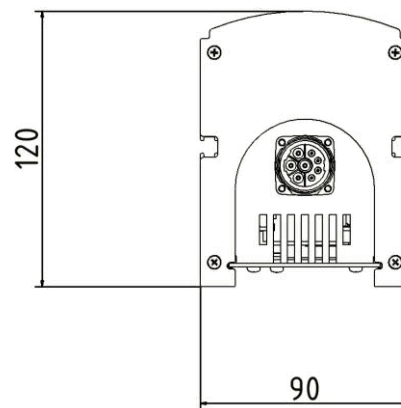
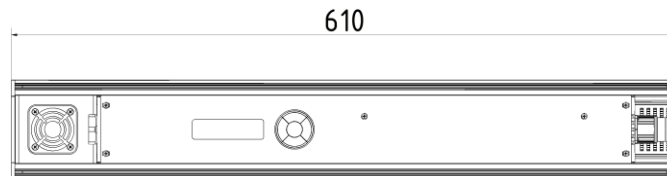
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System Overview

Nano*Pix 2880 HP



Nano*Pix 1440 HP



Installation using mounting bracket

1. The Nano*Pix 1440 HP / 2880 HP is fitted as standard with two mounting brackets on the back of the housing. These can be positioned along any point of the profile and offer maximum flexibility.
2. The mounting brackets come pre-drilled with a 11mm hole to receive a DIN 16 spigot or a stage lighting hook. Alternatively, floor stands (not included in the delivery) can be mounted on the brackets.

For even more flexibility, we recommend the optional quick release fastener system "Slide" to facilitate frequent changes from floor-based to overhead operation. See figures 1-3



Figure 1



Figure 2



Figure 3

3. Secure the Nano*Pix 1440 HP / 2880 HP fixture with a safety cable, using the eyelet provided.

Wiring

The Nano*Pix 1440 HP / 2880 HP battens are supplied with data and power by an 8pin Multicore-Connector.

This connector system is compatible with the following products:

- Nano*Pix 1620/3240 RGB+WW+KW
- SpectraConnect5 and SpectraConnect5LED
- SpectraLED72 and SpectraLED144

This offers the possibility to use cables that you may already have in stock with the Nano*Pix 1440 HP / 2880 HP fixtures. Different fixtures can be connected using the same cabling system.



Please note that a maximum 10 Nano*Pix 1440 HP or 5 Nano*Pix 2880 HP fixtures can be serially connected using one power supply cable.

Initial Start-up

Attach a stage lighting hook or a mounting clamp to the mounting bracket and suspend the Nano*Pix batten from a pipe or truss. Tighten the hook or clamp only when you have determined the fixture's final position.

Connect the output multicore cable of one batten to the input connection on another batten. Once this connection has been made, you can position the battens in the required locations.

Tighten the hook or clamp securely and attach a safety cable, using the eyelet on the batten, to the pipe or truss.

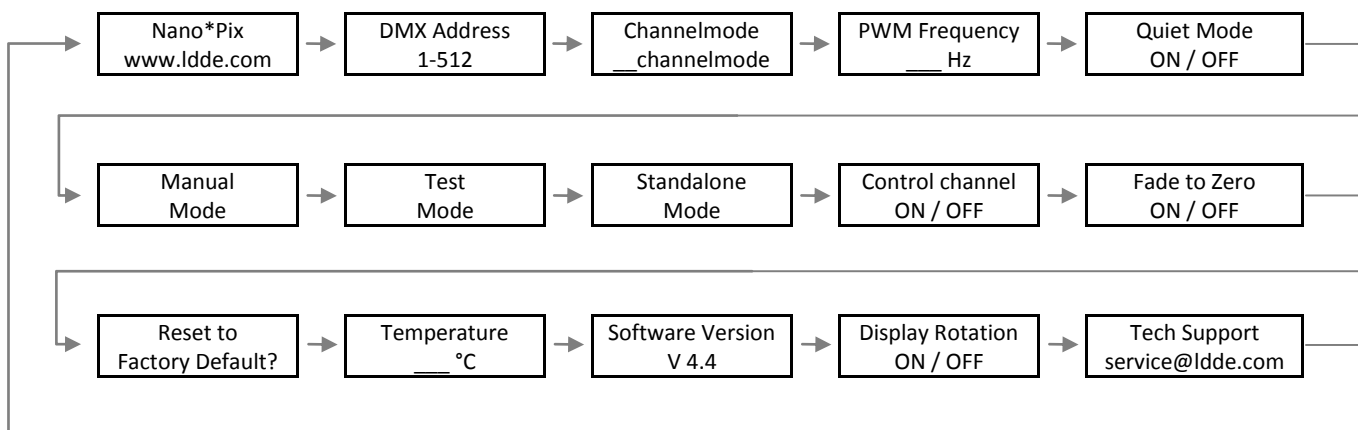
Connect the power supply cable to the first batten. This comes with an earth contact plug and a 5 pin XLR connector. Plug the power connector into a live circuit and the XLR connector into a DMX output socket.



ENSURE THAT THE BATTENS ARE NEVER CONNECTED TO A DIMMABLE POWER CIRCUIT!!!

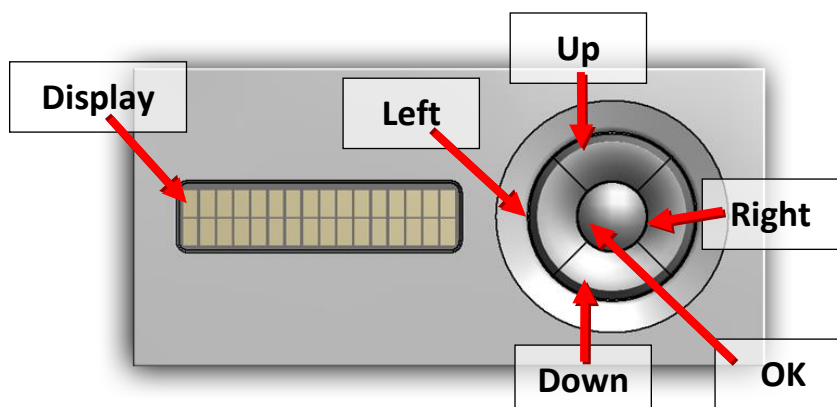
Once the Nano*Pix batten is supplied with power, the integrated OLED Display will be illuminated. Calibrate the system, using the control panel at the back of the fixture. We recommend configuring your fixtures before mounting them in the rig. The different modes of configuration are explained in detail on the following pages of this manual.

Menu Structure



DMX Address	DMX address, 1 - 512
Channelmode	see table
PWM Frequency	PWM Frequency, 750Hz, 1500Hz, 3000Hz
Quiet Mode	deactivates fan
Manual Mode	Manual 7 channel mode (including Strobe)
Test Mode	Single Colour Test / adjustable speed
Standalone Mode	10 set colours, adjustable intensity
Control Channel	Remote control of Quiet Mode / Frequency / Fade
Fade to Zero	Automatic fade to 0
Factory Default	Reset to factory defaults
Temperature	Current temperature – updated every 10 sec
Software Version	Current Software Version
Display Rotate	Rotates the display (180 °)

Operation:



The menu is controlled with the following 5 keys: Up, Down, Left, Right and OK
 You can alternate between items in the main menu with the keys Left / Right.
 If you want to change a setting, press OK and menu item will begin flash. Change the setting with Up / Down and press okay to save.
 While the system saves the new setting, the word "Saving..." will appear in the lower half of the display.

DMX Address

This menu allocates the DMX start address between 1 and 512.

Channelmode Nano*Pix 2880 HP

Channelmode	Description
5	R, G, B, joint WW and CW, no master, no strobe
7	Master, R, G, B, joint WW and CW, strobe
10	16 bit mode, R, G, B, joint WW and CW, 2 channels, no master, no strobe
60	R, G, B, WW, CW, no master, no strobe
120	16 bit mode, R, G, B, WW, CW, 2 channels, no master, no strobe
62	Master, R, G, B, WW, CW, strobe
30	R, G, B, WW, CW joined in each upper and lower bank, no master, no strobe
31	Master, R, G, B, WW, CW joined in each upper and lower bank, no strobe
11	16 bit mode, R, G, B, joint WW and CW, strobe 8 bit
121	16 bit mode, R, G, B, WW, CW, strobe 8 bit

Activating the control channel adds 1 DMX channel to these addresses.

Channelmode Nano*Pix 1440 HP

Channelmode	Description
5	R, G, B, joint WW and CW, no master, no strobe
7	Master, R, G, B, joint WW and CW, strobe
10	16 bit mode, R, G, B, joint WW and CW, 2 channels, no master, no strobe
30	R, G, B, WW, CW, no master, no strobe
60	16 bit mode, R, G, B, WW, CW, 2 channels, no master, no strobe
32	Master, R, G, B, WW, CW, strobe
15	R, G, B, WW, CW joined in each upper and lower bank, no master, no strobe
16	Master, R, G, B, WW, CW joined in each upper and lower bank, no strobe
11	16 bit mode, R, G, B, joint WW and CW, strobe 8 bit
61	16 bit mode, R, G, B, WW, CW, strobe 8 bit

Activating the control channel adds 1 DMX channel to these addresses.

Quiet Mode

OFF	<p>Nano*Pix 1440 HP: The cooling fans operate at 100% from temperatures of 40° C and more and are deactivated for temperatures below 35° C. When temperatures reach 56° C and above, the master is reduced by a DMX value of 4 per degree of temperature. Maximum reduction is 96.</p> <p>Nano*Pix 2880 HP: The cooling fans engage from temperatures of 50° C and above with the lowest fan stage and are then controlled per degree of temperature. Maximum fan capacity is reached at temperature of 75° C.</p> <p>When temperatures reach 56° C and above, the master is reduced by a DMX value of 4 per degree of temperature. Maximum reduction is 96.</p>
ON	<p>Master is set at the maximum value of 159, the cooling fan are deactivated. If temperature rises above 79° C, cooling fans engage at 100%.</p>

Control Channel

Activation of the control channel allows the remote control of a variety of functions, using an additional DMX channel. The "Channel Mode" menu displays this message: "xx Ch +Contr Ch".

Controls:

1. Set Control Channel to the desired value (see table below)
2. Leave value unchanged for a minimum of 3 sec
3. Then jump to zero
4. New setting is saved

PWM Frequency 750Hz.....	11-20 DMX
PWM Frequency 1500Hz.....	21-30 DMX
PWM Frequency 3000Hz.....	31-40 DMX
Quiet Mode ON.....	101-110 DMX
Quiet Mode OFF.....	111-120 DMX
Fade to Zero ON.....	201-210 DMX
Fade to Zero OFF.....	211-220 DMX

Factory Default

Reset will restore the NanoPix to its factory settings

Start Address.....	1
Channelmode.....	7
Quiet Mode.....	OFF
Frequency.....	750 Hz
Control Channel.....	OFF
Fade to Zero.....	ON
Display Rotate.....	OFF

Manual Mode

Manual mode allows the fixture to be configured for a 7 channel mode of any desired colour and strobe:

Intensity.....	I
Red.....	R
Green.....	G
Blue.....	B
Warm White.....	WW
Cool White.....	KW
Strobe.....	St

Standalone Mode

Standalone Mode facilitates the configuration of 10 different set colours

	R	G	B	WW	KW
Magenta	255	0	255	0	0
Lavender	255	0	255	0	255
CT Blue	0	115	255	0	255
Light Green	0	255	84	118	0
Cyan	0	255	255	0	0
Yellow	255	255	0	0	0
Light Yellow	255	255	0	255	0
Amber	255	166	0	0	0
Warm White	255	216	0	255	255
Cold White	176	255	255	255	255

Fade to Zero

OFF	New DMX value of 0 (below DMX value 15) causes snap to 0
ON	New DMX value of 0 (below DMX value 15) causes fade to 0

PWM Frequency

750 Hz	PWM Frequency 750 Hz
1500 Hz	PWM Frequency 1500 Hz
3000 Hz	PWM Frequency 3000 Hz

Temperature

This menu displays the current temperature of the Nano*Pix fixture.

< 10°C	Measured temperature is lower than 10° C
XX °C	Measured temperature is being displayed
CHECK SENSOR	Temperature sensor malfunction, cable failure or communication with sensor interrupted

Display Rotate

This function rotates the display by 180°

OFF	Display in orientation with lettering on housing
ON	Display rotated by 180°

Test Mode

Test Mode fades up and down individual colours, then all colours up and down.

Fading speed can be altered with the Left/Right key.

Maintenance and Service

Should you encounter problems, please contact LDDE or one of our authorised LDDE-dealerships.

LDDE Vertriebs GmbH
A-1110 Vienna, Austria
Tel.: +43.1.7671811-0
Fax: +43.1.7671811-99
office@ldde.com
www.ldde.com

Warranty and Liability

We offer a 24 month warranty on this NanoPix fixture. This includes free repair of faults that are verifiably due to manufacturing defects. Such repairs are solely performed by the manufacturer.

Warranty expires due to:

- Alterations and repairs by unauthorised individuals
- Damage caused by third parties
- Damage resulting from non-compliance with the manual's instructions
- Connection to power supply with incorrect voltage
- Operating errors or damage caused by improper use or negligence.

LDDE declines any liability for damages to the fixture as well as consequential damages which result from negligence, improper use and setup, wrong setting into operation and use, ignoring of valid safety regulations and unsuitable use.

Technical Specifications

Illuminant

Nano*Pix 1440 HP: 1440 LEDs	288 each of red, green, blue, warm white and cool white
Nano*Pix 2880 HP: 2880 LEDs	576 each red, green, blue, warm white and cool white

Power Input:

Voltage Input	100-250 VAC / 50/60 Hz
Nano*Pix 1440 HP	115 W full load
Nano*Pix 2880 HP	230 W full load

Control / Wiring

Protocol	DMX 512 USITT Protocol
Input/Output	Power/Data Multicore-Connector System

Control Technology - HDTV (for TV use)

Resolution	16Bit resolution
Frequency	750Hz /1500Hz / 3000Hz
Response time	20 milli seconds response time
Strobe	1-25Hz

Specifications

Housing	Aluminium Continuous Cast (black)
Protection Class	IP20
Cooling	Sensor-controlled fan system
Temperatures	+5°C ... +40°C

Dimensions / Weight

Nano*Pix 1440 HP	610 mm x 120 mm x 90 mm (B x H x D)
Weight	5,5 kg
Nano*Pix 2880 HP	1206 mm x 120 mm x 90 mm (B x H x D)
Weight	9,2 kg

Safety Standard

Certificates	CE, EN 61000-3-2, EN 61000-3-3, EN 55015, EN 60529
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