STARSHINE LIGHTS

STAGE EFFECT SERIES

N3

RGBW PIXEL MOVINGBEAM/STROBE EFFECT LIGHT

10 x 30 W RGBW 4-IN-1 LED/MOTORIZEDY-AXIS/PIXELCONTROL / DMX512 + RDM

SCHEMATIC REPRESENTATION - NOT TO SCALE

320 W	7 / 13 / 43 CH	10 x 30 W	IP20
RATED POWER	DMX CHANNEL MODES	RGBW PIXEL LEDS	INDOOR FIXTURE

STARSHINE LIGHTS PRODUCT MANUAL

PRODUCT OVERVIEW

The N3 is a professional 10-cell RGBW pixel effect fixture built around ten 30 W 4-in-1 LEDs and a motorized Y-axis. It supports compact 7-channel control, feature-rich 13-channel control, and 43-channel pixel control for independent RGBW adjustment of all ten cells. The fixture also provides DMX512, RDM, automatic playback, master/slave synchronization and sound-active operation, with 32-bit linear dimming and 1-30 Hz strobe capability.

BEFORE POWERING ON

Inspect the housing, mounting points, lens area, power cable, DMX connectors and ventilation openings. Confirm that the mains supply is within AC 100-240 V, 50/60 Hz.

INDOOR / LED SAFETY

This fixture is rated IP20. Keep it dry. Do not stare directly into the LED apertures. Keep combustible materials away and maintain unobstructed ventilation during operation.

STARSHINE LIGHTS PRODUCT MANUAL

TECHNICAL PARAMETERS

Item	Specification
Product Model	N3
Product Type	RGBW pixel-controlled Y-axis moving beam / strobe effect light
Power Supply	AC 100-240 V, 50/60 Hz
Rated Power	320 W (10 x 30 W LED engine)
Light Sources	10 x 30 W RGBW 4-in-1 LEDs
Control Modes	DMX512, RDM, Auto, Master/Slave, Sound Active
DMX Channel Modes	7CH / 13CH / 43CH
Dimming	32-bit, 0-100% linear dimming
Strobe	1-30 Hz
Movement / Effect	Motorized Y-axis + beam + strobe / pixel effects
Operating Temperature	-30 to 50 deg C
Housing	Black metal
Connections	DMX512 input/output; power input/output
Ingress Protection	IP20 - indoor use only

DISPLAY PANEL AND BUTTONS

Button	Function	Description
MENU	Menu	Move through menu items; hold as described for factory settings.
UP	Increase	Increase a value or move to the next option.
DOWN	Decrease	Decrease a value or move to the previous option.
ENTER	Confirm	Open a selection, confirm and save the selected value.

DISPLAY MENU FUNCTIONS

Display	Range / Option	Function / Remark
A001	A001-A512	Set the DMX starting address. ENTER saves the address.
CH7	CH7 / CH13 / CH43	Select the DMX channel profile.
M000	M000-M126	Select one of 127 built-in effects.
S000	S000-S255	Adjust built-in effect playback speed.
R255	R000-R255	Red output level.
G255	G000-G255	Green output level.
B255	B000-B255	Blue output level.
W255	W000-W255	White output level.
Soud	Sound Active	Run effects in sound-active mode.
M000	M000-M255	Adjust the Y-axis motor parameter.
T000	Temperature	Shows fixture temperature, e.g. T045 = 45 deg C. If no 10K thermistor is installed, T000 is shown.

MASTER / SLAVE CONTROL

Connect two or more identical N3 fixtures with 3-pin DMX signal cable. Configure one fixture only as the master and the remaining units as slaves. When the master runs built-in fade, pulse, jump, sound-active, dimming or automatic effects, compatible slave fixtures follow the same playback.

- Use only one master in each linked group. Multiple masters can cause unsynchronized flashing or unstable playback.
- Master/slave operation is intended for use without an active DMX512 controller on the same line.
- Use identical fixtures and matching firmware where possible for the most consistent synchronized effects.

FACTORY SETTINGS

While the fixture is showing any address from A001 to A512, press and hold MENU for approximately 5 seconds to enter factory settings. These parameters affect LED output limits, motor behavior, fan operation, temperature protection and parameter transfer. Hold MENU for approximately 5 seconds again to exit.

Display	Range / Option	Factory Function
R255	R032-R255	Set maximum red LED current/output limit.
G255	G032-G255	Set maximum green LED current/output limit.
B255	B032-B255	Set maximum blue LED current/output limit.
W255	W032-W255	Set maximum white LED current/output limit.
M000	M000-M255	Adjust Y-axis motor operating speed.
FAN0	FAN0 / FAN1	FAN0: fan starts at power-on. FAN1: fan starts according to temperature setpoint.
T040	T040-T070	Set the temperature protection / fan threshold from 40 to 70 deg C.
Send	Send	Broadcast this fixture's factory parameters to identical fixtures connected in parallel on the 3-pin DMX line.

FACTORY-SETTING PRECAUTIONS

- Factory settings can change LED current and thermal behavior. Record original values before adjustment.
- Use the Send function only with identical N3 fixtures. Disconnect unrelated DMX equipment before broadcasting parameters.
- If you are unsure about current limits, temperature thresholds or motor values, leave the factory defaults unchanged and contact Starshine Lights support.

QUALIFIED SERVICE RECOMMENDED

The factory menu is intended for commissioning and service. Incorrect current, fan or temperature settings may reduce reliability or cause abnormal operation.

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DMX512 SETUP AND CONNECTION

Set the fixture address and channel mode before programming the controller. When a valid DMX512 signal is received, the address display stops flashing.

- Use shielded DMX data cable rather than ordinary audio microphone cable.
- On long cable runs, use a DMX terminator at the final fixture when required.
- Avoid overlapping DMX address ranges unless identical fixture behavior is intentionally programmed.
- RDM can be used by compatible controllers for supported discovery/addressing functions.

7-CHANNEL MODE

CH	DMX Value	Function	Description / Remark
1	000-255	Y-axis Motor	Y-axis movement / position control.
2	000-255	Y-axis Speed	Adjust Y-axis motor speed.
3	000-255	Red Dimmer	Red output, linear 0-100%.
4	000-255	Green Dimmer	Green output, linear 0-100%.
5	000-255	Blue Dimmer	Blue output, linear 0-100%.
6	000-255	White Dimmer	White output, linear 0-100%.
7	000-149 / 150-255	Reset	000-149: no reset. To reset, first set the channel below 10, then raise it to 150-255.

13-CHANNEL MODE

CH	DMX Value	Function
1	000-255	Y-axis Motor
2	000-255	Y-axis Speed
3	000-255	Master Dimmer
4	000-255	Strobe
5	000-255	Red Dimmer
6	000-255	Green Dimmer
7	000-255	Blue Dimmer
8	000-255	White Dimmer
9	000-255	Mode / Built-in Effect Selection
10	000-255	Effect Speed
11	000-255	Background Color
12	000-255	Background Color Dimmer
13	000-149 / 150-255	Reset: first below 10, then 150-255

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43-CHANNEL PIXEL MODE

43CH mode provides independent RGBW control for each of the ten LED cells, in addition to the Y-axis motor and motor speed. Use this profile when pixel-by-pixel color control is required.

LED Cell	Red	Green	Blue	White
LED 1	3	4	5	6
LED 2	7	8	9	10
LED 3	11	12	13	14
LED 4	15	16	17	18
LED 5	19	20	21	22
LED 6	23	24	25	26
LED 7	27	28	29	30
LED 8	31	32	33	34
LED 9	35	36	37	38
LED 10	39	40	41	42

CH	DMX Value	Function / Remark
1	000-255	Y-axis motor
2 3-	000-255	Y-axis motor speed
42	000-255	Ten LED cells x RGBW. Each color channel provides linear dimming for its assigned cell.
43	000-149 / 150-255	Reset. Set the channel below 10 first, then raise to 150-255 to trigger a full fixture reset.

PIXEL PATCHING EXAMPLE

LED 1 CH 3-6	LED 2 CH 7-10	LED 3 CH 11-14	LED 4 CH 15-18	LED 5 CH 19-22	LED 6 CH 23-26	LED 7 CH 27-30	LED 8 CH 31-34	LED 9 CH 35-38	LED 10 CH 39-42

PROGRAMMING NOTES

- Use 43CH mode for chases, gradients and pixel-mapped RGBW effects across all ten LED cells.
- Use 13CH mode when you need master dimming, strobe, built-in effect macros, speed and background color controls without consuming 43 controller channels.
- Use 7CH mode for compact manual control of movement plus global RGBW output.
- When changing channel modes, repatch the controller so the fixture address range does not overlap adjacent devices.

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BUILT-IN EFFECT REFERENCE - MODES 0-63

The DMX mode/effect channel maps two DMX values to each preset. Mode 0 is no function. Modes 1-127 call the corresponding built-in effect number. Selected presets may also respond to background-color controls in 13CH mode.

DMX Value	Mode	Effect
000-001	0	No function
002-003	1	Effect 1
004-005	2	Effect 2
006-007	3	Effect 3
008-009	4	Effect 4
010-011	5	Effect 5
012-013	6	Effect 6
014-015	7	Effect 7
016-017	8	Effect 8
018-019	9	Effect 9
020-021	10	Effect 10
022-023	11	Effect 11
024-025	12	Effect 12
026-027	13	Effect 13
028-029	14	Effect 14
030-031	15	Effect 15
032-033	16	Effect 16
034-035	17	Effect 17
036-037	18	Effect 18
038-039	19	Effect 19
040-041	20	Effect 20
042-043	21	Effect 21
044-045	22	Effect 22
046-047	23	Effect 23
048-049	24	Effect 24
050-051	25	Effect 25
052-053	26	Effect 26
054-055	27	Effect 27
056-057	28	Effect 28
058-059	29	Effect 29
060-061	30	Effect 30
062-063	31	Effect 31
064-065	32	Effect 32
066-067	33	Effect 33
068-069	34	Effect 34
070-071	35	Effect 35
072-073	36	Effect 36
074-075	37	Effect 37
076-077	38	Effect 38
078-079	39	Effect 39
080-081	40	Effect 40
082-083	41	Effect 41
084-085	42	Effect 42
086-087	43	Effect 43
088-089	44	Effect 44
090-091	45	Effect 45
092-093	46	Effect 46
094-095	47	Effect 47
096-097	48	Effect 48
098-099	49	Effect 49
100-101	50	Effect 50
102-103	51	Effect 51
104-105	52	Effect 52
106-107	53	Effect 53
108-109	54	Effect 54
110-111	55	Effect 55
112-113	56	Effect 56
114-115	57	Effect 57
116-117	58	Effect 58
118-119	59	Effect 59
120-121	60	Effect 60
122-123	61	Effect 61
124-125	62	Effect 62
126-127	63	Effect 63

PRESET COLOR NOTE

In 13CH mode, use CH9 for preset selection and CH10 for preset speed. CH11/CH12 control background color and background dimming where supported by the selected preset. If a preset does not respond to the background controls, select another effect or use direct RGBW control.

BUILT-IN EFFECT REFERENCE - MODES 64-127

Continue the effect-selection table below. The source firmware documentation identifies mode 117 as a composite effect. Effect appearance can vary with firmware revision and current color/background settings.

DMX Value	Mode	Effect
128-129	64	Effect 64
130-131	65	Effect 65
132-133	66	Effect 66
134-135	67	Effect 67
136-137	68	Effect 68
138-139	69	Effect 69
140-141	70	Effect 70
142-143	71	Effect 71
144-145	72	Effect 72
146-147	73	Effect 73
148-149	74	Effect 74
150-151	75	Effect 75
152-153	76	Effect 76
154-155	77	Effect 77
156-157	78	Effect 78
158-159	79	Effect 79
160-161	80	Effect 80
162-163	81	Effect 81
164-165	82	Effect 82
166-167	83	Effect 83
168-169	84	Effect 84
170-171	85	Effect 85

DMX Value	Mode	Effect
172-173	86	Effect 86
174-175	87	Effect 87
176-177	88	Effect 88
178-179	89	Effect 89
180-181	90	Effect 90
182-183	91	Effect 91
184-185	92	Effect 92
186-187	93	Effect 93
188-189	94	Effect 94
190-191	95	Effect 95
192-193	96	Effect 96
194-195	97	Effect 97
196-197	98	Effect 98
198-199	99	Effect 99
200-201	100	Effect 100
202-203	101	Effect 101
204-205	102	Effect 102
206-207	103	Effect 103
208-209	104	Effect 104
210-211	105	Effect 105
212-213	106	Effect 106

DMX Value	Mode	Effect
214-215	107	Effect 107
216-217	108	Effect 108
218-219	109	Effect 109
220-221	110	Effect 110
222-223	111	Effect 111
224-225	112	Effect 112
226-227	113	Effect 113
228-229	114	Effect 114
230-231	115	Effect 115
232-233	116	Effect116
234-235	117	Composite effect
236-237	118	Effect 118
238-239	119	Effect 119
240-241	120	Effect 120
242-243	121	Effect 121
244-245	122	Effect 122
246-247	123	Effect 123
248-249	124	Effect 124
250-251	125	Effect 125
252-253	126	Effect 126
254-255	127	Effect 127

EFFECT PROGRAMMING WORKFLOW

1 Choose CH13 mode
Select CH13 on the fixture and patch 13 controller channels.

2 Select a preset
Use CH9 / Mode to select effect 1-127.

3 Set speed
Use CH10 / Speed to tune the playback rate.

4 Add background color
Use CH11 and CH12 when the selected preset supports foreground/background color adjustment.

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CONTROL MODE SUMMARY

Mode	How to Select	Main Use
DMX 7CH	CH7 + DMX address	Compact movement + global RGBW control.
DMX 13CH	CH13 + DMX address	Movement, master dimmer, strobe, RGBW, effect mode, speed and background controls.
DMX 43CH	CH43 + DMX address M000-	Independent RGBW control of all ten LED cells.
Automatic	M126 + S000-S255	Built-in effect playback without a controller.
Sound Active	Soud	Built-in effects respond to audio through the fixture microphone.
Master / Slave	One master + compatible slaves	Synchronized playback across multiple identical fixtures.
RDM	Compatible RDM controller	Supported remote device discovery/addressing functions.

SAFETY, INSTALLATION AND MAINTENANCE

DISCONNECT POWER

Disconnect the fixture from mains power before installation, inspection, cleaning or maintenance. Allow the housing and optical components to cool before touching them.

- Read and understand this manual before use.
- Keep the IP20 fixture dry and protect it from rain, spray and prolonged humidity.
- Use a properly grounded supply within AC 100-240 V, 50/60 Hz.
- Keep ventilation openings clear while operating.
- Avoid direct viewing of the LED apertures and concentrated beam.
- For overhead use, install a suitable clamp and an independent safety cable.
- Keep the fixture away from flammable materials and heat-sensitive surfaces.
- Do not operate a fixture with damaged cables, connectors, housing or mounting hardware.
- Internal service and factory-current adjustments should be performed by qualified personnel.
- Stop use immediately if there is abnormal noise, smell, heat, light output or movement.

RECOMMENDED CLEANING AND INSPECTION

Interval	Procedure
Weekly	Wipe the outer housing with a soft, slightly damp, lint-free cloth.
Monthly	Clean optical lenses carefully with suitable optical/glass cleaner and a soft cloth.
Monthly	Remove dust from ventilation openings and confirm cooling airflow is unobstructed.
Before overhead use	Inspect screws, mounting points, clamp and independent safety cable.
As required	Stop using the fixture if abnormal noise, smell, heat, light output or movement is observed.

QUICK TROUBLESHOOTING

Symptom	Check
No light output	Master dimmer/color levels, blackout state, DMX values, built-in mode selection, power input.
No DMX response	DMX address, selected channel mode, cable direction, controller patch, cable/terminator.
Unsynchronized slave fixtures	Confirm only one master; remove active controller signal; use matching N3 fixtures/firmware.
Over-temperature behavior	Clear ventilation, check ambient temperature, inspect fan settings and temperature threshold.
Unexpected reset	Check reset channel: it must be taken below 10 before being raised to 150-255.

STARSHINE LIGHTS SUPPORT

Product Model: N3
Keep the product serial number, purchase information and firmware version available when requesting support.

Website: www.starshinelights.com