

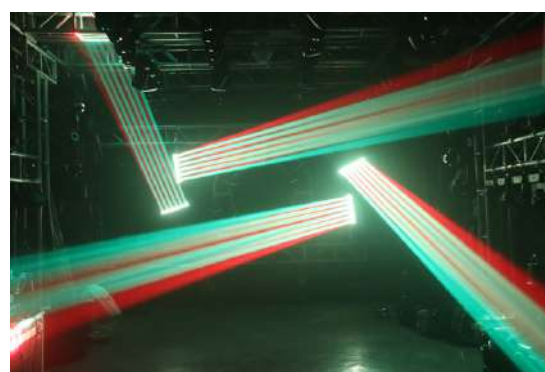


PROFESSIONAL MOVING HEAD SERIES

N6

DUAL-SIDED BLADEMOVING HEAD

6 x 40 W RGBW | 3.5 DEGREE BEAM | INFINITE PAN/TILT | PIXEL AND SCENE EFFECTS


300 W
 RATED POWER

23 / 28 / 63 CH
 DMX PROFILES

RGBW
 4-IN-1 LED SYSTEM

IP20
 INDOOR USE

PRODUCT OVERVIEW

The N6 is a professional dual-sided blademoving head designed for clubs, touring productions, rental companies and large entertainment venues. Six 40 W RGBW 4-in-1 LEDs produce narrow, high-impact beams, while independent main-side and secondary-side controls create layered color, strobe, scene and pixel effects. Infinite pan and tilt rotation enables continuous kinetic looks, and three DMX profiles provide a choice between streamlined show control and detailed pixel programming.

BEFORE POWERING ON

Inspect the housing, optics, mounting points, power/data connectors and ventilation openings. Confirm AC 100-240 V, 50/60 Hz.

MOVEMENT AND LIGHT SAFETY

Keep people and objects outside the full rotation area. Avoid direct viewing of concentrated light and warn guests before rapid strobe effects.

READ THIS MANUAL BEFORE INSTALLATION OR OPERATION

Keep it available for DMX programming, inspection, service and safe show operation.





01 TECHNICAL SPECIFICATIONS

Category	Item	Specification
Optical	Light Source	6 x 40 W RGBW 4-in-1 LEDs
Optical	Lens / Beam Angle	3.5 degrees
Electrical	Rated Power	300 W
Electrical	Power Supply	AC 100-240 V, 50/60 Hz
Control	DMX Profiles	23CH / 28CH / 63CH
Control	Operating Modes	DMX512, master/slave, automatic and sound-active
Movement	Pan / Tilt	Infinite rotation
Movement	Resolution	8-bit / 16-bit positioning
Interface	Display	TFT display with 180-degree orientation flip
Interface	DMX Data	3-pin and 5-pin XLR input/output
Interface	Power Input	PowerCON input
Construction	Ingress Protection	IP20 - indoor use only
Physical	Fixture Dimensions	640 x 210 x 400 mm
Physical	Net Weight	17.5 kg

PACKING AND TRANSPORT DATA

Packing Method	Packed Size	Gross Weight	Capacity
Carton	735 x 505 x 300 mm	23 kg	1 fixture
Flight Case	720 x 640 x 600 mm	70.5 kg	2 fixtures

KEY PERFORMANCE FEATURES

1

DUAL-SIDED OUTPUT

Independent main and secondary lighting layers support contrasting colors, strobes and scene effects.

2

INFINITE MOTION

Continuous pan and tilt rotation creates uninterrupted sweeps, aerial patterns and kinetic blade looks.

3

FLEXIBLE CONTROL

Choose compact 23CH/28CH operation or the 63CH profile for expanded pixel-level programming.



The channel profiles in this manual are standardized as 23CH, 28CH and 63CH to match the detailed channel maps supplied with the fixture.





02 SAFETY AND INSTALLATION



DISCONNECT POWER BEFORE INSTALLATION OR SERVICE

Isolate the fixture from mains power and allow all moving, housing and optical components to stop and cool before mounting, inspection, cleaning or service.

MOUNTING AND RIGGING

- Install only on a stable structure rated for the 17.5 kg fixture and all mounting hardware.
- For overhead use, secure the fixture with approved clamps and an independent safety cable attached to a suitable structural point.
- Allow full pan/tilt rotation without contact with truss, cables, drapes, walls or other fixtures.
- Do not carry or lift the unit by the moving head or optical assembly.

POWER AND DATA

- Use AC 100-240 V, 50/60 Hz from a correctly wired, grounded and protected supply.
- Do not use damaged PowerCON or XLR cables. Keep connectors dry and cables away from heat, sharp edges and foot traffic.
- Use shielded DMX cable for the 3-pin or 5-pin data connection; do not use unshielded microphone cable.
- Internal repairs must be completed by qualified service personnel.

OPERATING ENVIRONMENT AND LIGHT SAFETY

- The N6 is rated IP20 and is intended for dry indoor use. Protect it from moisture, condensation, excessive dust and corrosive atmospheres.
- Keep ventilation openings clear and maintain free airflow. Do not operate inside an unventilated enclosure.
- Avoid direct, close-range viewing of concentrated LED output and do not aim the fixture at reflective surfaces where glare may reach people.
- Rapid strobe effects may affect photosensitive individuals. Provide suitable warning and follow venue safety procedures.
- Stop immediately if the fixture produces abnormal heat, odor, smoke, noise, movement or intermittent output.

PRE-OPERATION CHECKLIST

1	Housing, lenses, ventilation openings and connectors are clean and undamaged.
2	Mounting hardware and the independent safety cable are secure.
3	The full pan/tilt movement area is clear of people, objects and loose cables.
4	Mains voltage, DMX profile, starting address and controller patch are correct.
5	All personnel understand the blackout, reset and emergency power-disconnect procedure.

OPERATING CLEARANCE

1

FULL ROTATION

Allow unobstructed clearance around the entire moving head and base. Secure loose power and DMX cable loops.

2

FREE AIRFLOW

Keep all ventilation openings exposed. Do not press the base or head against drapes, walls or scenery.

3

SAFE LIGHT PATH

Aim concentrated output away from direct eye level and reflective surfaces. Control access during testing.





03 DMX512 FUNCTIONS - 23 CHANNEL MODE (1-18)

CH	Function	DMX Value	Description / Remark
1	Pan	000-255	Pan position, 0-100%.
2	Pan Fine	000-255	Fine pan positioning.
3	Tilt	000-255	Tilt position, 0-100%.
4	Tilt Fine	000-255	Fine tilt positioning.
5	Continuous Pan	000-255	Continuous pan rotation control.
6	Continuous Tilt	000-255	Continuous tilt rotation control.
7	Master Dimmer	000-255	Total output from dark to full.
8	Strobe	000-019	No strobe / open.
8	Strobe	020-255	Strobe speed from slow to fast.
9	Red	000-255	Main-side red intensity, 0-100%.
10	Green	000-255	Main-side green intensity, 0-100%.
11	Blue	000-255	Main-side blue intensity, 0-100%.
12	White	000-255	Main-side white intensity, 0-100%.
13	Background Color	000-010	No function.
13	Background Color	011-255	Background color macro selection.
14	Background Dimmer	000-255	Background output, 0-100%.
15	Scene Macro	000-010	No function.
15	Scene Macro	011-250	Scenes 1-24 in sequential 10-value blocks.
15	Scene Macro	251-255	Cycle scenes 1-24.
16	Scene Speed	000-255	Scene speed from slow to fast.
17	Secondary Strobe	000-019	No strobe.
17	Secondary Strobe	020-255	Secondary-side strobe, slow to fast.
18	Secondary Color Macro	000-010	No function.
18	Secondary Color Macro	011-255	Color combinations; see the next page.

PROGRAMMING NOTES

- Set the starting address and select the 23-channel fixture profile on the controller.
- Raise channel 7 and the required RGBW channels before testing color output.
- Channels 5 and 6 provide continuous rotation functions; verify movement clearance before raising them.
- Use channel 18 for preset secondary-side color combinations or continue with channels 19-22 for scene effects.



04 23CH COLOR MACRO AND CHANNELS 19-23

CH 18 Value	Secondary-Side Color Combination
000-010	No function
011-025	Red
026-040	Green
041-055	Blue
056-070	White
071-085	Red + Green
086-100	Red + Blue
101-115	Green + Blue
116-130	Red + White
131-145	Green + White
146-160	Blue + White
161-175	Red + Green + White
176-190	Red + Blue + White
191-205	Green + Blue + White
206-255	Red + Green + Blue + White

REMAINING 23CH FUNCTIONS

CH	Function	DMX Value	Description / Remark
19	Secondary Background Color	000-010	No function.
19	Secondary Background Color	011-255	Secondary background color macro.
20	Secondary Background Dimmer	000-255	Secondary background output, 0-100%.
21	Secondary Scene Macro	000-010	No function.
21	Secondary Scene Macro	011-250	Scenes 1-24 in sequential 10-value blocks.
21	Secondary Scene Macro	251-255	Cycle secondary-side scenes 1-24.
22	Secondary Scene Speed	000-255	Secondary scene speed, slow to fast.
23	Reset	000-250	No function.
23	Reset	251-255	Fixture reset.



Use reset only when the fixture is stationary and the movement area is clear. Return channel 23 below 251 after the reset command.

23CH QUICK OUTPUT TEST

1	Patch	Patch one N6 fixture with the 23CH profile at a free starting address.
2	Dimmer	Raise channel 7 to confirm the main-side master dimmer.
3	Main RGBW	Test channels 9-12 individually, then combine colors.
4	Secondary Side	Test channel 17 strobe and channel 18 color macros at low intensity.
5	Movement	Test pan, tilt and continuous rotation only after confirming full clearance.





05 DMX512 FUNCTIONS - 28 CHANNEL MODE

CH	Function	DMX Value / Behavior
1	Pan	000-255: pan position, 0-100%.
2	Pan Fine	000-255: fine pan positioning.
3	Tilt	000-255: tilt position, 0-100%.
4	Tilt Fine	000-255: fine tilt positioning.
5	Pan/Tilt Speed	000-255: movement speed control.
6	Continuous Pan	000-255: continuous pan rotation.
7	Continuous Tilt	000-255: continuous tilt rotation.
8	Master Dimmer	000-255: total output, 0-100%.
9	Strobe	000-019: open; 020-255: slow-to-fast strobe.
10	Red	000-255: main-side red, 0-100%.
11	Green	000-255: main-side green, 0-100%.
12	Blue	000-255: main-side blue, 0-100%.
13	White	000-255: main-side white, 0-100%.
14	Background Color	000-010: none; 011-255: color macro.
15	Background Dimmer	000-255: background output, 0-100%.
16	Scene Macro	000-010: none; 011-250: scenes 1-24; 251-255: cycle.
17	Scene Speed	000-255: scene speed, slow to fast.
18	Secondary Master Dimmer	000-255: secondary-side output, 0-100%.
19	Secondary Strobe	000-019: open; 020-255: slow-to-fast strobe.
20	Secondary Red	000-255: red, 0-100%.
21	Secondary Green	000-255: green, 0-100%.
22	Secondary Blue	000-255: blue, 0-100%.
23	Secondary White	000-255: white, 0-100%.
24	Secondary Background Color	000-010: none; 011-255: color macro.
25	Secondary Background Dimmer	000-255: secondary background, 0-100%.
26	Secondary Scene Macro	000-010: none; 011-250: scenes 1-24; 251-255: cycle.
27	Secondary Scene Speed	000-255: scene speed, slow to fast.
28	Reset	000-250: no function; 251-255: reset.

28CH PROFILE SUMMARY

The 28-channel profile adds dedicated pan/tilt speed plus direct RGBW control for both sides of the fixture. It is the recommended profile for general show programming when full pixel-level control is not required.





06 DMX512 FUNCTIONS - 63 CHANNEL MODE (1-28)

CH	Function	DMX Value / Behavior
1	Pan	000-255: pan position, 0-100%.
2	Pan Fine	000-255: fine pan positioning.
3	Tilt	000-255: tilt position, 0-100%.
4	Tilt Fine	000-255: fine tilt positioning.
5	Continuous Pan	000-255: continuous pan rotation.
6	Continuous Tilt	000-255: continuous tilt rotation.
7	Master Dimmer	000-255: total output, 0-100%.
8	Strobe	000-019: open; 020-255: slow-to-fast strobe.
9	Red	000-255: main-side red, 0-100%.
10	Green	000-255: main-side green, 0-100%.
11	Blue	000-255: main-side blue, 0-100%.
12	White	000-255: main-side white, 0-100%.
13	Reserved	No function.
14	Background Color	000-010: none; 011-255: color macro.
15	Background Dimmer	000-255: background output, 0-100%.
16	Scene Macro	000-010: none; 011-250: scenes 1-24; 251-255: cycle.
17	Scene Speed	000-255: scene speed, slow to fast.
18	Secondary Master Dimmer	000-255: secondary-side output, 0-100%.
19	Secondary Strobe	000-019: open; 020-255: slow-to-fast strobe.
20	Secondary Red	000-255: red, 0-100%.
21	Secondary Green	000-255: green, 0-100%.
22	Secondary Blue	000-255: blue, 0-100%.
23	Secondary White	000-255: white, 0-100%.
24	Secondary Background Color	000-010: none; 011-255: color macro.
25	Secondary Background Dimmer	000-255: secondary background, 0-100%.
26	Secondary Scene Macro	000-010: none; 011-250: scenes 1-24; 251-255: cycle.
27	Secondary Scene Speed	000-255: scene speed, slow to fast.
28	Reset	000-250: no function; 251-255: reset.

BASE PROFILE NOTE

In 63CH mode, channels 1-28 provide movement, global color, secondary-side and scene control. Channel 13 is reserved; channels 29-63 add extended RGB and white zone control.



07 63CH EXTENDED PIXEL FUNCTIONS (29-63)

CH	Function	DMX Value	Description
29	Secondary Red Zone 1	000-255	Zone 1 red, 0-100%.
30	Secondary Green Zone 1	000-255	Zone 1 green, 0-100%.
31	Secondary Blue Zone 1	000-255	Zone 1 blue, 0-100%.
32	Secondary Red Zone 2	000-255	Zone 2 red, 0-100%.
33	Secondary Green Zone 2	000-255	Zone 2 green, 0-100%.
34	Secondary Blue Zone 2	000-255	Zone 2 blue, 0-100%.
35-37	Secondary RGB Zone 3	000-255 each	Red, green and blue in sequence.
38-40	Secondary RGB Zone 4	000-255 each	Red, green and blue in sequence.
41-43	Secondary RGB Zone 5	000-255 each	Red, green and blue in sequence.
44-46	Secondary RGB Zone 6	000-255 each	Red, green and blue in sequence.
47-49	Secondary RGB Zone 7	000-255 each	Red, green and blue in sequence.
50-52	Secondary RGB Zone 8	000-255 each	Red, green and blue in sequence.
53-55	Secondary RGB Zone 9	000-255 each	Red, green and blue in sequence.
56-58	Secondary RGB Zone 10	000-255 each	Red, green and blue in sequence.
59	Secondary White Zone 1	000-255	White zone 1, 0-100%.
60	Secondary White Zone 2	000-255	White zone 2, 0-100%.
61	Secondary White Zone 3	000-255	White zone 3, 0-100%.
62	Secondary White Zone 4	000-255	White zone 4, 0-100%.
63	Secondary White Zone 5	000-255	White zone 5, 0-100%.

PIXEL PROGRAMMING GUIDANCE

- Channels 29-58 follow sequential RGB order for ten secondary-side zones: red, green and blue for each zone.
- Channels 59-63 provide five independent white-zone intensity controls.
- Build pixel chases with smooth fades first, then add global dimmer or strobe effects after verifying the fixture order.
- Keep reset channel 28 below 251 during normal pixel programming.



Before programming a final show, identify the physical zone orientation by raising one extended channel at a time. Record the fixture's installed direction so pixel chases run consistently across multiple units.

PIXEL TEST SEQUENCE

Step	Action	Expected Result
1	Set global and secondary master dimmers to a visible test level.	Fixture output is enabled without strobe.
2	Raise channels 29, 30 and 31 separately.	Zone 1 displays red, green and blue.
3	Repeat the RGB test through channels 32-58.	Zones 2-10 respond in sequence.
4	Raise channels 59-63 one at a time.	White zones 1-5 respond independently.
5	Store the confirmed order in the controller fixture profile.	Chases run consistently across all N6 units.





08 DMX CONNECTION AND OPERATION



- Use one connector format consistently through each run, or use correctly wired 3-pin/5-pin adapters.
- Daisy-chain fixtures from DMX OUT to DMX IN. Do not use passive Y-splits.
- Terminate the final fixture when required, especially on long runs or in electrically noisy installations.
- Separate DMX cable from mains power where practical and avoid overlapping address ranges unless identical response is intended.

DMX ADDRESS EXAMPLES

Fixture	23CH Start / Range	28CH Start / Range	63CH Start / Range
Fixture 1	A001 / 001-023	A001 / 001-028	A001 / 001-063
Fixture 2	A024 / 024-046	A029 / 029-056	A064 / 064-126
Fixture 3	A047 / 047-069	A057 / 057-084	A127 / 127-189
Fixture 4	A070 / 070-092	A085 / 085-112	A190 / 190-252

OPERATING MODES

Mode	Use
DMX512	External control through the selected 23CH, 28CH or 63CH personality.
Automatic	Runs built-in movement, color and scene programs without a controller.
Sound-Active	Triggers built-in effects from the fixture microphone and local sensitivity setting.
Master/Slave	One fixture runs an automatic or sound program while linked fixtures follow in synchronization.

Address limits: the highest starting address that keeps the complete profile inside the DMX universe is A490 for 23CH, A485 for 28CH and A450 for 63CH.

TFT DISPLAY AND MODE SELECTION

Display Function	Recommended Use
DMX Address	Set the starting address to match the controller patch and selected channel profile.
Channel Profile	Choose 23CH, 28CH or 63CH before connecting the fixture to the active show file.
Display Flip	Rotate the TFT interface by 180 degrees for easier operation when the fixture is suspended.
Auto / Sound	Select a built-in automatic or sound-active program for controller-free operation.
Master / Slave	Configure one master only; set linked fixtures to slave mode before connecting the DMX chain.





09 TROUBLESHOOTING

Symptom	Checks / Corrective Action
No power or display	Confirm the power source, compatible voltage and secure PowerCON connection. Stop using damaged cables or connectors.
No visible output	Raise the relevant master dimmer and RGBW channels. Check blackout, scene, background and strobe settings.
No DMX response	Check input/output direction, cable type, starting address, selected profile, controller patch and final-line termination.
Incorrect colors or pixels	Confirm 23CH/28CH/63CH selection. In 63CH mode, test extended channels one at a time to verify physical zone order.
Erratic movement	Clear the full movement area, inspect mounting hardware and verify pan/tilt or continuous-rotation channels. Disconnect power if movement is obstructed.
Sound mode does not react	Select sound-active operation, increase microphone sensitivity and provide a stronger nearby music signal.
Unexpected reset or shutdown	Check reset channel values, mains stability, blocked ventilation and excessive heat. Allow the fixture to cool before retesting.

CLEANING AND INSPECTION

Interval	Procedure
Before every use	Inspect the housing, lenses, PowerCON/DMX connectors, ventilation openings, mounting points and movement clearance.
Weekly	Disconnect power and wipe the exterior with a soft, dry or slightly damp lint-free cloth.
Monthly	Clean optical surfaces carefully and remove dust from ventilation openings without pushing debris into the housing.
Before overhead use	Inspect clamps, fasteners, structural attachment points and the independent safety cable.
As required	Stop operation and arrange qualified inspection if there is abnormal heat, odor, noise, output or movement.

STORAGE, TRANSPORT AND SERVICE

- Transport in the original carton or a fitted flight case. Lock or support moving assemblies so they cannot swing freely in transit.
- Store in a clean, dry indoor location away from moisture, corrosive materials, direct heat and impact.
- Do not use abrasive tools, aggressive solvents or aerosol cleaners on the housing, display or lenses.
- There are no user-serviceable parts inside. Record the serial number and purchase information before requesting support.

STARSHINE LIGHTS SUPPORT

Product model: N6

Keep the serial number and purchase information available when requesting support.

www.starshinelights.com

