

LASER TECHNIQUE PROSCAN DMX 250mW USER INSTRUCTIONS

SAFETY, OPERATING ENVIRONMENT AND USER MAINTENANCE:

- 1. BEFORE ATTEMPTING TO USE THE LASER. IT IS IMPORTANT THAT YOU READ THE OPERATING INSTRUCTIONS AND BECOME FAMILIAR WITH ALL FUNCTIONS AND SPECIAL CONSIDERATIONS WHEN USING THE LASER.**
- 2. LASER BEAM PROJECTIONS MUST BE ABOVE HEAD HEIGHT, AND EXPOSURE TO REFLECTED OR PROJECTED BEAMS MUST BE AVOIDED.**
- 3. BEFORE OPERATION THE PROSCAN MUST BE CONNECTED TO A SUITABLE MAINS PLUG. THE UNIT MUST BE EARTHED. USE A 13A FUSE.**
- 4. THE PROSCAN MUST ONLY BE OPENED AND SERVICED BY QUALIFIED PERSONAL.**
- 5. THE PROSCAN CANNOT BE CONNECTED TO A DIMMER SYSTEM, DAMAGE MAY OCCUR IF IT IS.**
- 6. THE PROSCAN CAN ONLY BE USED INSIDE AND MUST NOT BE USED OUTSIDE.**
- 7. THE 250mW PROSCAN MUST NOT BE OPERATED FOR MORE THAN 6 HOURS IN ANY ONE TIME, AFTER SHUTTING THE LASER DOWN, THE HEAD MUST BE LEFT ON FOR A FURTHER 10 MINUTES FOR COOLING.**
- 8. THE FRONT LASER OUTPUT WINDOW AND MIRROR MUST BE CLEANED FREQUENTLY TO REMOVE DUST AND SMOKE PARTICLES FROM THE PROJECTION WINDOW WITH A NON ABRASIVE GLASS CLEANER.**
- 9. CARE MUST BE EXERCISED WHEN HANDLING THE PROSCAN. IT CONTAINS FRAGILE COMPONENTS WHICH MAY BE DAMAGED BY KNOCKS OR EXCESSIVE FORCE.**
- 10. THE FAN INTAKE AND OUTPUT DUCTS MUST NOT BE OBSTRUCTED OR PLACED NEAR ANY OBJECT CLOSER THAN 100mm. MAKE SURE THAT THERE IS A SUPPLY OF COOL CLEAN AIR FOR THE COOLING SYSTEM.**
- 11. DO NOT PLACE THE LASER NEAR THE DIRECT OUTPUT FROM A SMOKE MACHINE. MAKE SURE THERE IS A DISTANCE OF AT LEAST 10m FROM A SMOKE MACHINE.**
- 12. MAKE SURE THE LASER IS OPERATED FROM A STABLE MAINS POWER SOURCE 230VAC \pm 8%.**

FAILURE TO OBSERVE THE ABOVE MAY CAUSE DAMAGE TO THE LASER SYSTEM AND THEREFORE WILL NOT BE COVERED BY A WARRANTY REPAIR.

The manufacturer Nu Light systems Ltd and Laser Technique hold no liability for the use of this product or for any damage which may result from its use, it is the users responsibility to operate the laser in a safe manner. Specifications may change without prior notice.

GENERAL OPERATION AND DESCRIPTION:

1. The PROSCAN DMX laser head has the following features:
 - Projection window, pan and tilt mirror, where the laser patterns project out from,
 - IEC input plug, and IEC socket lead which must be connected to the respective live, neutral, and earth lines,
 - DMX input and output connectors,
 - DMX address selector switches.
2. To select a DMX start address, remove power from the laser and follow the procedure below: (remember the laser takes 4 DMX channels)
 - Locate the rear panel where the DMX selector switches are,
 - Decide what start address you want, and adjust the appropriate switches. The address can be selected with the switches as shown: (0=switch ON, 1=switch OFF)

SW 1	SW 2	SW 3	SW 4	SW 5	SW 6	SW 7	SW 8	SW 9	SW 10	DMX
1	2	4	8	16	32	64	128	256		
Off	On	On	On	On	On	On	On	On	On	001
On	On	Off	On	On	On	On	On	On	On	004
Off	On	On	On	Off	On	On	On	On	On	017
On	Off	On	Off	Off	On	On	On	On	On	034
Off	Off	Off	Off	Off	Off	Off	Off	Off	On	511

3. It is important that switch 10 is always in the ON position,
4. The pan and tilt movements are via channel 1 and 2, lasers patterns can be selected using channel 3 of a DMX controller,
5. The laser beam ON / OFF and colour is controlled via channel 4. It also has the added facility that the laser head can be shut down if the channel is reduced to a value of 000 for more than 40 seconds. This puts the laser into stand by mode, bringing the value above 001 will start the laser up again after 60 seconds. This is very useful when the laser is not used for some time as it will conserve power and lifetime.
6. Once the DMX address has been selected with the power turned off, the laser is ready for operation. Plug in the output lead from a DMX controller, then plug the laser into a suitable power outlet. You will see the pan and tilt unit start to calibrate. It is ready for control via DMX.

PROSCAN ARGON DMX HEAD 250mW SPECIFICATIONS:

OPTICAL:

Laser Source : Argon Ion Laser
Maximum Optical Power : 250mW (power may reach up to 300mW),
Classification : 3B,
Wavelength : 547-514nm CYAN, GREEN, BLUE,
Beam Divergence : 1.0mrad,,
Beam Diameter : 1.0 mm,
Laser Life : 2000 Hours,
Optics : Front surface enhanced aluminium mirrors with anti reflective coated output window, dichloric filters,
Shutter : Spring return solenoid,
Maximum Scan Time : 25mS exposure every 300mS.

EFFECTS:

- 16 Pre-set Patterns,
- 155° Pan and 90° Tilt projection,
- 20° Pattern divergence angle,
- 2 Scanners

PROSCAN ARGON DMX CHANNEL ASSIGNMENTS:

CHANNEL 1:	TILT POSITION	CHANNEL 4:	BEAM CONTROL
CHANNEL 2:	PAN POSITION	000 - 001	LASER SHUT DOWN
CHANNEL 3:	PATTERN SELECTION	002 - 005	BEAM OFF
		006 - 063	FULL POWER CYAN
		064 - 127	GREEN
		128 - 191	BLUE
		192 - 255	FULL POWER CYAN
000 - 015	PATTERN 1		
016 - 031	PATTERN 2		
032 - 047	PATTERN 3		
048 - 063	PATTERN 4		
064 - 079	PATTERN 5		
080 - 095	PATTERN 6		
096 - 111	PATTERN 7		
112 - 127	PATTERN 8		
128 - 143	PATTERN 9		
144 - 159	PATTERN 10		
160 - 175	PATTERN 11		
176 - 191	PATTERN 12		
192 - 207	PATTERN 13		
208 - 223	PATTERN 14		
224 - 239	PATTERN 15		
240 - 255	PATTERN 15		

POWER SUPPLY:

- Linear power supply for electronics,
- Switch mode power supply for argon laser,
- 208 - 240 VAC operation,
- 1800 Watt power consumption.

CONFORMITY / SAFETY FEATURES:

- CE Conformity to : EN 55011:1991 CLASS B (conducted and radiated),
EN 61000-4-2:1995,
EN 61000-4-3:1995,
EN 61000-4-8:1994,
LOW VOLTAGE DIRECTIVE,
- Scanner Failure Protection. If scanners malfunction laser source will be shut down,
- Pulse train MPE = 1.132 J/m², Energy Density at 5.1m in medium smoke = 1.102 J/m².

PHYSICAL (packaging size and weight includes controller):

System Dimensions : 720 (l) x 280 (w) x 125 (h) mm, not including hanging bracket and knobs,
Weight : 14.0Kg,
Operating Temperature : 5-40°C,
Packaging Size : 940 (h) x 485 (w) x 310 (h) mm,
Packaged Weight : 20Kg.