

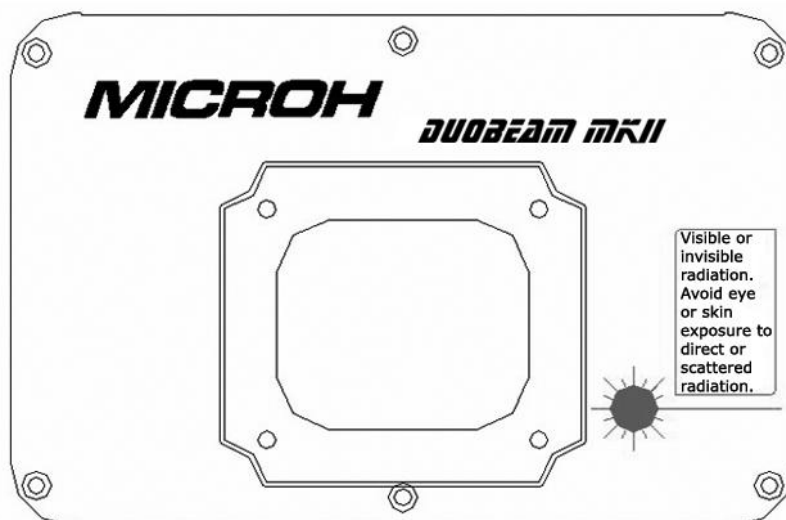
# **MICROH**

## **PROFESSIONAL PRODUCTS**

### Owner's Manual

### Scanning Green and Red 140mw Laser Light

# **DUOBEAM II**



PLEASE READ INSTRUCTION MANUAL BEFORE USING THE PRODUCT

## **UNPACKING UNIT**

In order to use this product safely and correctly, please read this manual carefully before use.

When you receive this product, please check for any problems caused during shipping. Please ensure that the following parts are included in this package:

- DUOBEAM MKII – 1 pc
- DMX512 (XLR) signal cable – 1 pc
- Power Cable – 1 pc
- Instruction Manual

## **INSTALLATION**

Please make sure the voltage you are using is compatible with the marking on the product prior to installation.

It is important that the unit be installed by a qualified technician.

Please ensure that an area of 0.5M is clear of any flammable material when installing this unit.

Please ensure that the fan and exhaust vents are kept clean at all times. Regular maintenance must be performed on this unit in order to ensure optimal performance and laser diode life.

A safety cable must be used when installing this unit.

## **NOTICE**

Please follow the instructions outlined in this manual. This product must be repaired by a qualified person.

- Do not operate this product in wet or dusty conditions.
- This unit must be installed in a fixed position in order to minimize vibrations. Make sure your clamp is tightened properly.
- Ensure that the vent is free and clear from any obstruction.
- Ensure that plug is connected securely before turning unit on.
- Do not run unit continuously for longer than **two hours**.
- If unit is run consistently for two hours, it must be **turned off for 15 minutes in order to cool down**.
- Whenever transporting this product please ensure that original packaging is used or a proper flight case with padding to protect the unit.

## **WARNING**

This laser light has a danger rating of Class IIIB, it is dangerous to observe the beam of light directly. The minimum distance for observation is 20CM, and at that distance you should not look directly at the beam for longer than 10 seconds.

## **SPECIFICATIONS**

Laser Type:	Solid state semiconductor laser
Wavelength:	Red 650nm, Green 532nm
Power Supply:	110V-220V 50/60Hz Auto Switching 50 watt .5 amp
Laser Output:	Red 100mw, Green 40mW
DMX Channels:	8
Operating Mode:	DMX512, Sound Active and Master slave
Patterns:	16





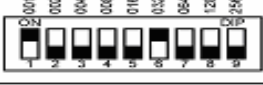



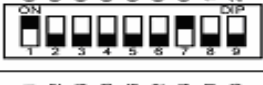
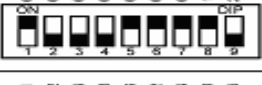







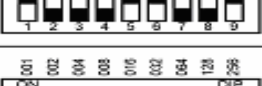
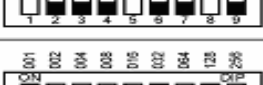
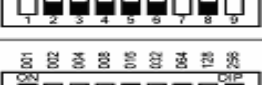
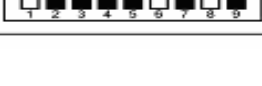
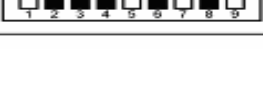
## DMX Operation

This light can be controlled using standard DMX512 controllers. In order to control the light via DMX you must assign the DMX address using the 10 dip switches at the back of the unit.

To put the unit into DMX Mode, dip switch 10 must be set to the off position. After doing this, you must then select the desired DMX Address by using dip switches 1 to 9. **The unit must be turned off while performing this function. If you are changing DMX address, the unit must be turn off to allow it to reset.**

Dip Switch No.	Digital Address	Dip Switch No.	Digital Address
1	1	6	32
2	2	7	64
3	4	8	128
4	8	9	256
5	16	10	FUNCTION

The following are examples of dip switch settings:-

No.	Digital	Binary	No.	Digital	Binary
1	001		12	177	
2	017		13	193	
3	033		14	209	
4	049		15	225	
5	065		16	241	
6	081		17	257	
7	097		18	273	
8	113		19	289	
9	129		20	305	
10	145		21	321	
11	161		22	337	

<b>CHANNEL</b>	<b>SLIDE VALUE</b>	<b>Control content</b>
Ch 1	0~50	Black Out – Laser Off
	51~101	Sound active mode
	102~152	DMX512 Image mode 1
	153~203	DMX512 Image mode 2
	204~255	Auto running
Ch 2	0~03	Circle zoom in/out
	04~7	Short line rotation
	8~11	Circle move around X axis
	12~15	Circle move around z axis
	16~19	Writing circle
	20~23	circle move around Y axis
	24~27	Circle move left and right
	28~31	Half-circle Rotation
	32~35	Half-circle rotate on X axis
	36~39	Half-circle rotate on Y axis
	40~43	Half-circle move right and left
	44~47	“W”rotation on X axis
	48~51	“W”rotation on Y axis
	52~55	Wave rotation on X axis
	56~59	Image flow like wave
	60~63	Wave move left and right
	64~67	Square zoom in & out
	68~71	Square rotate on X axis
	72~75	Square rotate on Y axis
	76~79	Square zoom in & out while rotating
	80~83	Triangle zoom in & out
	84~87	Triangle zoom in & out while rotating
	88~91	Triangle move left & right while drawing
	92~95	Wavy lines moving
	96~99	Star Rotation
	100~103	Star move left & right
	104~107	Line move up and down
	108~111	Line rotation clockwise
	112~115	Horizontal Line adjusts short & long
	116~119	Vertical Line moves right and left
	120~123	Vertical Line adjusts short & long
	124~131	Line rotation
	132~135	Hexagon zoom in & out
136~139	Hexagon rotation	
140~143	Small circle move left and right	

Ch 2	144~147	Small circle trace figure 8
	148~151	Dot move right and left
	152~155	Dot move around one path
	156~159	Image flow like wave
	160~163	Cloud move left and right
	164~167	Cloud rotating on Y axis
	168~171	Cloud rotating on X axis
	172~175	“V” separate and move
	176~179	“V” rotate around X axis
	180~183	“V” rotation around Y axis
	184~187	“V” zoom in & out
	188~191	“V” rotating clockwise
	192~195	Single wave rotation clockwise
	196~199	Image flow around single wave
	200~207	Line rotating
	208~211	“+”rotation anticlockwise
	212~215	“+”zoom in & out
	216~219	Line rotating clockwise on centre
	220~223	Image flow around “8”
	224~227	“8”rotation
228~255	Rectangle rotation	
Ch 3	0~50	Single Image 1 (vertical line)
	51~101	Single Image 2 (circle)
	102~152	Single Image 3 (square)
	153~203	Single Image 4 (dot)
	204~255	Single Image 5 (triangle)
Ch 4	0~255	Single Image zoom in to out (small to large)
Ch 5	0~49	Single Image stops rotation
	50~149	Single Image rotate anticlockwise
	150~255	Single Image rotate clockwise
Ch 6	0~255	Single Image move around X axis Value 0 = Home Position. Moves Right to Left
Ch 7	0~255	Single Image move around Y axis Value 0 = Home Position. Move Up to Down
Ch 8	0~255	Control Single Image scanning speed (0=Fast & 255=Slow)

## **DMX Operation Continued**

**Channel 1 is master DMX Channel.** This is used to put the unit in sound active mode, DMX512 Image Mode 1, DMX Image Mode 2, Auto and Blackout. Please see the values in the chart above for desired effect.

**Channel 2 Control:** This channel gives user ability to select the Images. In order to have access to Images using Channel 2, Channel 1 must be set to a value between 51-101. **Note:** In this mode Channels 3 to 8 are inactive.

**Channel 3 Control:** To access all single Images on Channel 3, Channel 1 must be set to a value between 102-152. **Note:** In this mode Channel 2 is inactive. Channels 4 to 8 are used to control the individual Images as selected.

**Channel 4 Control:** When Channel 3 is available (as described in section 3 above) Channel 4 allows you to Zoom single Images IN and OUT (control size) which have been selected on Channel 3. If Channel 4 value is at 0 most Images will appear as a dot, therefore it is important to select a value greater than 19 in order to see the required Image.

**Channel 5 Control:** When Channel 3 is available (as described in section 3 above) Channel 5 will allow you to control the rotation of the single Image selected on Channel 3.

**Channel 6 Control:** When Channel 3 is available (as described in section 3 above) Channel 6 will allow you to move the single Image on it's X axis (left to right). Value 0 will take Image back to the centre or home position.

**Channel 7 Control:** When Channel 3 is available (as described in section 3 above) Channel 7 will allow you to move the single Image on it's Y axis (up to down). Value 0 will take Image back to the centre or home position.

**Channel 8 Control:** When Channel 3 is available (as described in section 3 above) Channel 8 will control the scanning speed of the single Image selected on Channel 3.

## **SOUND ACTIVE MODE**

This unit can be run in Sound Active Mode. In Sound Active Mode the unit will change pattern and movement to the beat of the music.

### **SOUND ACTIVE SETTINGS**

1. To select Sound Active Mode, all DMX dip switches should be set to the off position.
2. Set Sensitivity/Volume knob to the desired level (centre position recommended)

When changing modes using the dip switches, the unit must **always** be turned off so that it can reset itself.

## **MASTER SLAVE MODE**

This unit can be run in Master Slave Mode. In Master Slave Mode one unit will be the master and all units set to Slave Mode will follow the Master patterns and movement.

### **MASTER SLAVE SETTINGS**

To select Master Slave Mode you need to set up the DMX dip switches.

1. Set Dip Switch 10 to the on position on Master and Slave unit
2. Set Dip Switch 1 to the on position for Master Unit
3. Set Dip Switch 1 to the off position for Slave Unit(s)
4. Connect XLR Cable to output of Master Unit and then to the input of the slave unit.
5. Set Sensitivity/Volume knob to the desired level (centre position recommended)

When changing modes using the dip switches, the unit must **always** be turned off so that it can reset itself. You connect up to 8 Slave units to one Master. More units may be connected but it will depend on the distance apart and may cause the units not to function accurately.