OPTORON
LASER SHOWTECHNIK

MagicNodes

NON-INTERLOCKED HOUSING WARNING

This unit contains high power laser devices internally. Do not open the laser housing, due to potential exposure to unsafe levels of laser radiation.

The laser power levels accessible if the unit is opened can cause instant blindness, skin burns and fires.

LASER EMISSION DATA

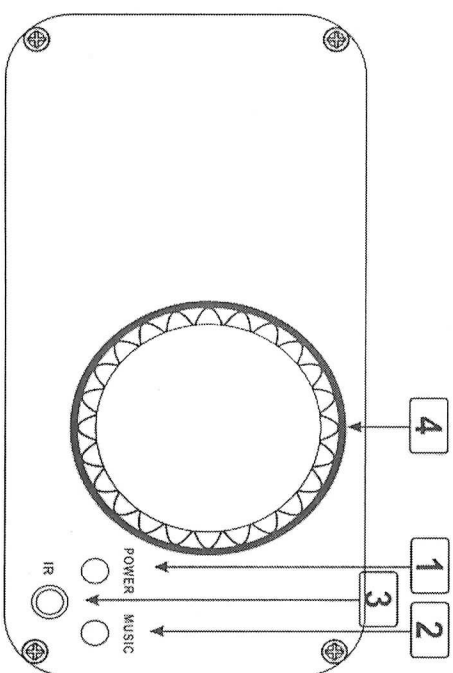| Laser Classification	Class 3B
Red Laser Medium	LD GaAlAs 650nm, typical
Green Laser Medium	DPSS Nd:YVO4, 532nm
Blue Laser Medium	LD GeAs 450nm, typical
Beam Diameter	<5mm at aperture
Pulse Data	All pulses < 4Hz (>0.25sec)
Divergence (each beam)	<2 mrad
Divergence (total light)	<90 degrees

As measured under IEC measurement conditions for classification.

Version: 5.0

This manual contains important laser operation information. Read and understand all instructions prior to powering on laser unit the first time, to avoid laser eye injury and to avoid breaking the law. Keep this manual in a safe place for future reference.

PRODUCT OVERVIEW

- This device has left out premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is necessary for the user to follow the safety instructions and warning notes written in this manual.

- The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.
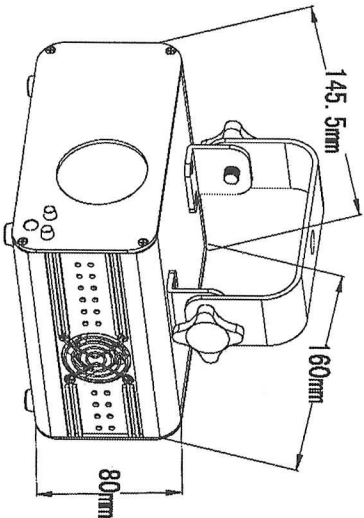
POWER
MUSIC
IR

1
3
2
4

LASER POWER

Magic Nodes(RBP）：100mW-R+180mW-P+80mW-B

Magic Nodes(GBC）：40mW-G+120mW-C+80mW-B

SPECIFICATIONS

Mains Input:	AC100-240V, 50/60Hz
Fuse:	250V 1 A Slow Blow (20mm Glass)
Total Power:	12W
Music Control:	Internal microphone
Laser Classification:	Class 3B
Laser Safety Standard:	EN60825-1 2007
Condition Temperature:	10~40℃
DMX Connections:	3 pins XLR Male/Female
DMX Channels	8 channels/10 channels
Measurement:	145x160x80mm
N Weight:	1.3 Kg

145.5mm
160mm
80mm

Specifications subject to change without prior notice.

The availability of particular products may vary by region. Please check with the dealer.

CONTROL & FUNCTION
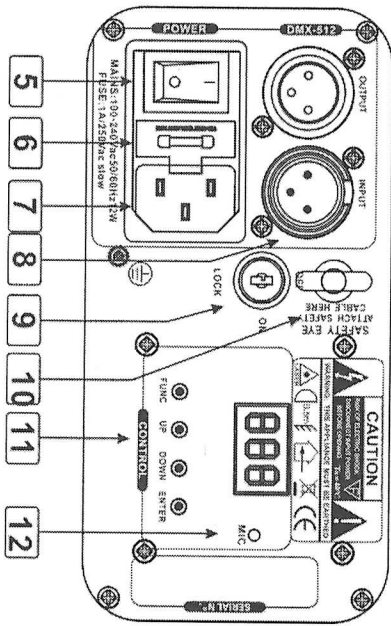
NO.	NAME	DESCRIPTION
1	Power LED	Indicates the fixture is switched on
2	Music LED	Synchronize to detected music signal
3	Remote Receiver	Remote controller signal receiver
4	Laser Aperture	The laser effect output aperture. NEVER LOOK INSIDE THE FIXTURE THROUGH THIS APERTURE WHILE FIXTURE IS OPERATING.
5	Power Switch	Switch ON and OFF the fixture
6	Fuse Holder	The replaced fuse is hold here
7	Main Power Input	With IEC socket and integrated fuse holder.
8	DMX Input/Output	3 pins male/female XLR connector
9	Key Switch	To turn the laser effect (laser diode) ON/OFF. Be sure that only authorized operator hold the key
10	Safety Eye	Used to attach a safety cable when the fixture is rigged. Chec[k] more details in RIGGING
11	Control panel	To control the fixture with digital LED display, check more information on CONTROL & FUNCTION
12	Microphone	To detect the music/sound signal

- Regular breaks during operation are essential to maximize the life of this device as it is not designed for continual use.

- Do not switch the unit on and off in short time intervals

- Always unplug the unit when it is not used for a longer time. Or before replacing the bulb or start servicing.
- In the event of serious operation problems, stop using the fixture and contact your dealer immediately.
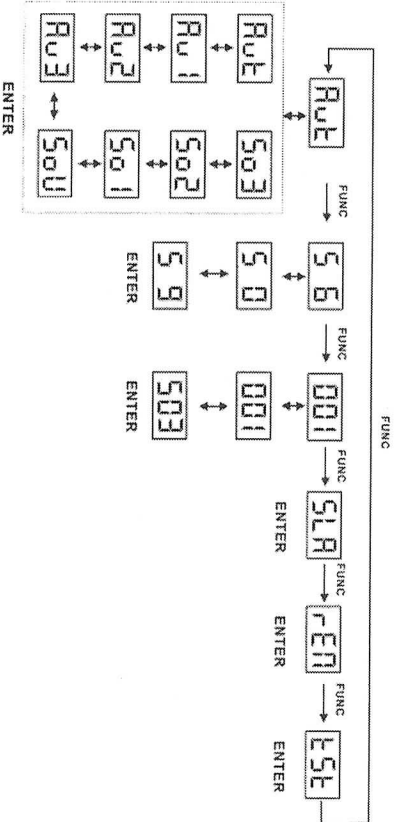
ATTENTION: Laser will be output from laser aperture in 5 seconds after the unit is powered on.

Operation

FIT-S(100R RE), FIT-S(40G RE), FIT-S(400B RE)
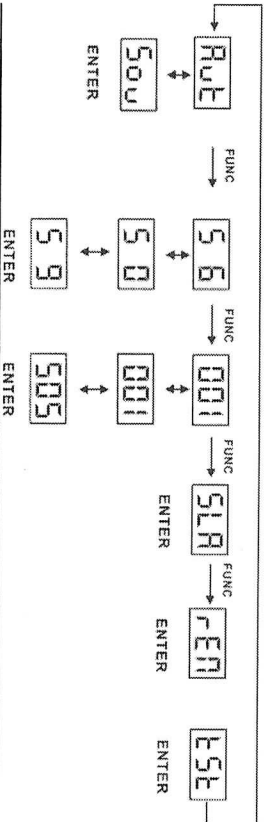
FIT-S(RGY RE), FIT-S(RBP RE), FIT-S(GBC RE)

CH 10	000-127	0 -359 degree fixed Z axis rotate
Z AXIS	128-191	Clockwise rotating
ROTATING	128-255	Anticlockwise rotating

PATTERN LIST IN CHANNEL 2

DMX	PATTERNS	DMX	PATTERNS	DMX	PATTERNS	DMX	PATTERNS	DMX	PATTERNS
000-007		064-071		128-135		190-197			
008-015		072-079		136-143		198-205			
016-023		080-087		144-151		206-213			
024-031		088-095		152-159		214-221			
032-039		096-103		160-167		222-229			
040-047		104-111		168-175		230-237			
048-055		112-119		176-181		238-245			
056-063		120-127		182-189		246-255			

Channel	Value	Function
CH 2	000-255	32 Patterns as shown in PATTERN LIST
CH 3 COLOR	000-024	BLACKOUT
	025-049	ORIGINAL PREPROGRAMED COLOR
	050-074	COLOR 1
	075-099	COLOR 2
	100-124	COLOR 3
	125-149	ALTERNATE COLOR 1 & COLOR 2
	150-174	ALTERNATE COLOR 2 & COLOR 3
	175-199	ALTERNATE COLOR 1 & COLOR 3
	200-224	ALTERNATE COLOR 1 & 2 & 3
	225-255	Color rolling
CH4 COLOR CHANGING SPEED	00-004	STOP
	005-255	SLOW --> FAST
CH 5 ZOOMING	0-127	100%-5% Size
	128-169	Zooming In
	170-209	Zooming Out
	210-255	Zooming In & Out
CH 6 X AXIS MOVING	000-127	128 different fixed position on X
	128-191	Clockwise moving
	128-255	Anticlockwise moving
CH 7 Y AXIS MOVING	000-127	128 different fixed position on Y
	128-191	Clockwise moving
	128-255	Anticlockwise moving
CH 8 y AXIS ROLLING	000-127	0 -359 degree fixed Y axis rolled
	128-191	Clockwise rolling
	192-255	Anticlockwise rolling
CH 9 x AXIS ROLLING	000-127	0 -359 degree fixed X axis rolled
	128-191	Clockwise rolling
	192-255	Anticlockwise rolling

AUTO SHOW Stand Alone Mode

- Press FUNC to enter MODE OPTION.
- Till to LED panel shows AUt.
- Press ENTER to confirm the setting.

The laser is working in standalone mode – AUTO SHOW. Each time when you turn on your laser, you will have this confirmed laser show.
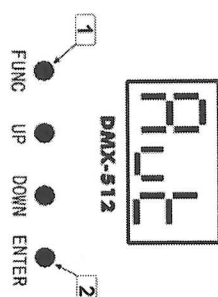
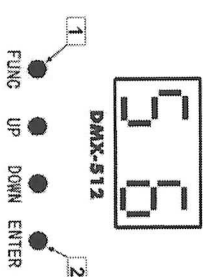## SOUND AVTIVATED SHOW (MUSIC SHOW) Stand Alone Mode

- Press FUNC to enter MODE OPTION.
- Till to LED panel shows SoU.
- Press ENTER to confirm the setting.

The laser is working in standalone mode – SOUND ACTIVATED SHOW. Each time when you turn on your laser, you will have this confirmed laser show.
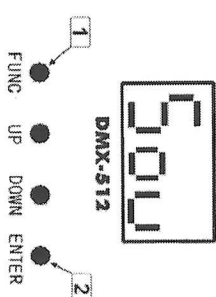
### SOUND ACTIVATED MODE sensitivity setting

- Press FUNC till to see S 6
- Press UP/DOWN to set microphone sensitivity. S 0 is no sound activated, from S 1 to S 9, the sensitivity level is going more sensitive.
- Press ENTER to confirm and save the setting.

DMX MODE

- Press FUNC to enter MODE OPTION
- Till to LED panel shows 001.
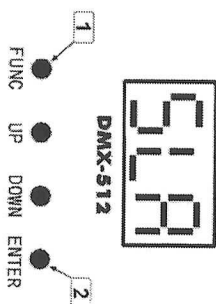- Press ENTER to confirm the setting.

The laser is working in "DMX MODE". With help of UP/DOWN button, it could be easily change the DMX address of the laser.
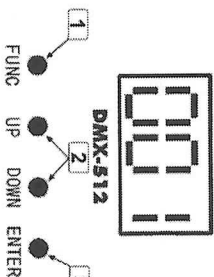
MASTER/SLAVE MODE

- Press FUNC to enter MODE OPTION
- Till to LED panel shows SLA
- Press ENTER to confirm the setting.

The laser is working in "SLAVE MODE". Connect MASTER laser and SLAVE lasers with DMX cable, the SLAVE lasers do what exactly MASTER laser does. Check "5.2 DMX connection" to have more details about laser connection.
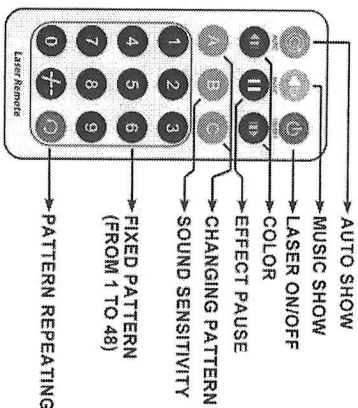
REM MODE (Remote Optional)

- Press FUNC to enter MODE selection
- Till to LED panel shows REM
- Press ENTER to confirm setting

Please check **Remote Instruction** for remote control details.

Attention In any standalone mode (excepted REM and SLA), press ON/OFF 🔵 for 2 second to activate remote function.

DMX-512

FUNC ① UP DOWN ENTER ②

Remote Instruction (Optional)

Laser Remote

→ AUTO SHOW
→ MUSIC SHOW
→ LASER ON/OFF
→ COLOR
→ EFFECT PAUSE
→ CHANGING PATTERN
→ SOUND SENSITIVITY
→ FIXED PATTERN (FROM 1 TO 48)
→ PATTERN REPEATING

Button	Function	Description
⏻ ON/OFF	ON/OFF	In REM mode, to turn ON / OFF laser. In any standalone mode, excepted SLA mode, pressing 2 seconds for activate REM mode.

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AUTO	AUTO running show
MUSIC	SOUND activated show. The blue music LED indicator is flashing when sound signal is detected. In Sound Activated Show, press MUSIC + B + "1~9" to do sensitivity setting; "9" is the most sensitive.
Sound Sensitivity	
COLOR CHANGING	Cycle through Programmed Color, Color 3 & Color 2, Color 1
PATTERN CHANGING	To show and change patterns
FIXED PATTERN	Choose favorite PATTERN from 1 to 48.
PATTERN REPEAT	Last PATTERN and current PATTERN cycle repeating

Attention Any control or setting in remote will be saved in ram, until the system is rebooted. The system is in AUTO show in any first remote mode after reboot.

DMX PROTOCOL

CHANNEL	VALUE	FUNCTION
CH 1 MODE	000-029	AUTOMATIC SHOW WITH ORIGINAL PREPROGRAMED COLOR
	030-059	AUTOMATIC SHOW WITH COLOR 1
	060-089	AUTOMATIC SHOW WITH COLOR 2
	090-119	AUTOMATIC SHOW WITH COLOR 3
	120-149	SOUND ACTIVATED SHOW WITH ORIGINAL PREPROGRAMED COLOR
	150-179	SOUND ACTIVATED SHOW WITH COLOR 1
	180-209	SOUND ACTIVATED SHOW WITH COLOR 2
	210-239	SOUND ACTIVATED SHOW WITH COLOR 3
	240-255	DMX MODE

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