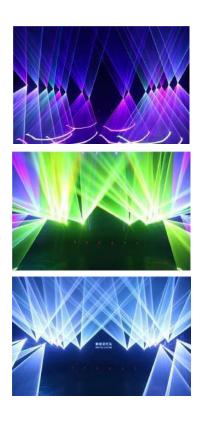


F9 Series Animated Laser Beam User Manual







Design by Newfeel Lighting | www.newfeellight.com | www.nfllaser.com







Thank you for purchasing this product. Please read all the safety and operations instructions carefully before using the product. Keep this manual for future reference. This product can create perfect laser programs and effects since it has passed a series of strictly tests before delivery. Please check the attachments listed on this page after opening the carton. If carton damaged or attachment missed in transit, please contact your dealer or our after sales service department.

Package list:

When you unpack the case, please take time to examine the items as follows:

- ······RGB animation laser projector 1 pcs
- ·····Power cord 1 pcs
- ······User manual 1 pcs

• Notice:

- 1. Avoid direct eye exposure to laser beam. Never intentionally expose your eye or others to direct laser beam. It can potentially cause instant eye injury or blindness if laser beam striking directly to eyes.
- 2. Don't point onto any oncoming pedestrians, vehicles or traffic routes from land, sea or air.
- 3. Don't project at or within the flight path of aircraft. If your intended surface is within 10 nautical miles of airport, lower the angle of light so that no lasers pointing into the sky.
- 4. Don't turn on and off the unit frequently.
- 5. Before using this unit makes sure the power supply is ground.
- 6. Use cleaning tissue to remove the dust absorbed on the external lenses periodically to optimize light output.
- 7. Don't set the scanner speed beyond the treal scanner speed of the fixtures while control the laser via any software.
- 8. Only the qualified person can do the electrical installation and repair job in accordance with all applicable codes and standards.

Technical Parameters:

Input power: AC90-240, 50-60HZ

Rated power: <200W Laser power: RGB1-5W

Laser category: pure solid-state semiconductor laser, with high stability and long life.

Laser modulation: analog modulation or TTL modulation

The beam diameter of the laser exit port: <6mm

Laser beam divergence angle: <1.6mrad

Laser wavelength: red light 638±5nm, green light 525±5nm, blue light 450±5nm

Vibration mirror scanning system: 15KPPS galvanometer

Sweep angle of galvanometer: $\pm 25^{\circ}$; input signal $\pm 5V$; linear distortion <2% Laser pattern: 128 patterns and animations are built-in on the motherboard.

Control mode: ILDA standard computer laser software/DMX512/sound control/self-propelled/master-slave

Control interface: International ILDA DB25 interface (for an optional function, the cost increases by RMB50), which can be connected to general laser software such as Pangolin, and the international general DMX512 interface.

DMX channel: 6/25CH

DMX special effects: pen break, strobe, rotate, move, roll, split image, draw gradually, change color, change size, etc.

Suitable places: small and medium-sized performances, bars and other places Working environment: indoor (minus 10 to minus 35 degrees)





Warning!!!! Do not look directly at the light beam at close range to avoid eye damage!

• LCD display panel:



Using touch keys and LCD Menu display, it is easy to use menu operation .The automatic loading system software ,after which will show software version .

Through the UP and DOWN key to select the function. The Mode Key is to determine the functions. Press ESC keys is to return to the level menu.

LCD function menu setting

Level 1 menu	Level 2 menu	Level 3 menu
	Running	
1、DMX-512	(running DMX-512 function)	
DMX-512-function	A001	
	(light address code)	
2、Auto	Running	
	(automatic function)	
(Automatic	Effect1、2、3	
function)	(Selecting Effect 1,2,3)	
3、Music	Running	
	(Running sound function)	
(Music control function)	Effect1、2、3	
	(Selecting Effect 1,2,3)	
	Running	
4、Testing Testing function	(Running Testing function)	
	Test 1、 2、 3	
	Select Testing pattern	
5、Setting	1、Address	Address

(Setting function)	(Address setting)	001 address code			
(Secting function)	2、Light	1、ON			
	(Background light setting)	2、ON 5S			
	3、One Beam	1、OFF			
	One beam protect setting	2、ON			
	4、Master	1、OFF			
	(Master setting)	2、ON			
	5、Channel	1、12CH			
	Channel setting	2、25CH			
	6、Default	1、Yes			
	(Recover the default setting)	2、No			
	After selecting yes:				
	1: Auto-Effect1				
	2: Address-001Light-ON 5S、One Beam-ON、Master-ON、				
		inel-12CH、			
	3: Size-128 Color-RGB Invert X-No Invert Y-No				
	1、Size (Laser scanning range setting)	Setting size parameter 128			
		1、Single			
		2、RGY			
6、Laser	2、Color	3、RBP			
technical parameters setting	(Laser Color setting)	4、GBA			
	(Luser color secting)	5、RGB			
		6、WYAP			
		Choose color			
	3、Invert X	1、Yes			
	Opposition X	2. No			
	4、Invert Y	1、Yes			
	Opposition Y	2、No			

三、•12 Channel functions::

	Channel	DMX-512	Controlling
		numerical	
		value	
	Laser off	0∼41	laser off
	Automatic	42~83	manual control
	Automatic	84~125	running animation effect
		$126{\sim}167$	running light beam effect
CH1		168~209	running light beam effect
Music Control	210~251	running animation effect	
	Music Control	252~255	manual control
CH2	Pattern group selecting	0∼255	one Pattern group per 32 value

CH3	Pattern setting	0∼255	one pattern per16 value	
CH4	.	1~127	Rotation angle selection	
		128~191	speed adjustment in reverse rotation	
CH4	Pattern rotation	192~255	speed adjustment in positive rotation	
CH5	Patterns	1~127	Horizontal rotation selection in position	
CITS	horizontal rotation	128~255	Horizontal rotation selection in speed	
CH6	Patterns vertical	1~127	Vertical rotation selection in position	
	rotation	128~255	Vertical rotation selection in speed	
	Pattern	1~127	Horizontal move selection in position	
CH7	horizontal move	128~255	Horizontal move selection in speed	
CH8	Pattern vertical	1~127	vertical move selection in position	
	move	128~255	vertical moving selection in speed	
	Pattern size	0∼63	pattern size selection	
		64~127	Reduce speed selection	
CH9		128~191	Zoom in speed selection	
		192~255	zoom speed selection	
CH10	Pattern gradually drawing —	1~127	Adjustment in gradually drawing speed	
CHIU	Pattern gradually drawing 二	128~255		
CH11	Scanning speed	0~127	Adjustment in scanning speed	
CIIII	Point effect	128~255		
	Color mode	0∼63	Fixed color selection	
		64~127	Speed selection in Color change effect	
CH12		128~191	Speed selection in flowing Water effect	
		192~255	Speed selection in gradually drawing	

四、•25 Channel functions::

Channel		DMX-512	
		numerical	Controlling
		value	
	Laser off	0~41	Laser off
	A	42~83	manual control
	Automatic	84~125	running animation effect
		126~167	running light beam effect
CH1		168~209	running light beam effect
Music Control	Music Control	210~251	running animation effect
	Music Control	252~255	manual control
CH2	Pattern A group selecting	0∼255	one Pattern group per 32 value

CH4 Group A Patterns rotation 128~127 Speed adjustment in reverse rotation 192~255 Speed adjustment in positive rotation 128~255 Horizontal rotation selection in speed 1~127 Horizontal rotation selection in speed 1~128~255 Horizontal rotation selection in speed 1~128~255 Horizontal move selection in speed 1~128~255 Horizontal move selection in speed 1~127 Horizontal move selection in speed 1~128~255 Vertical rotation se	СНЗ	Group A Patterns selecting	0∼255	one pattern per16 value
CH4 rotation 192~255 speed adjustment in positive rotation CH5 Group A Pattern horizontal rotation 128~255 Horizontal rotation selection in speed 1 1~127 Vertical move selection in position 1 1~127 Vertical rotation selection in speed 1 1~127 Vertical rot			1~127	Rotation angle selection
CH5 Group A Pattern horizontal rotation 192~255 speed adjustment in positive rotation horizontal rotation 128~255 Horizontal rotation selection in position yertical rotation 128~255 Horizontal rotation selection in speed 1~127 Vertical rotation selection in position yertical rotation which yertical rotation selection in position 128~255 Vertical rotation selection in position 128~255 Vertical rotation selection in position position 128~255 Horizontal move selection in position 128~255 Horizontal move selection in position 128~255 Horizontal move selection in speed 1~127 Vertical move selection in position 128~255 Horizontal rotation 128~255 Horizontal rotation selection in position 128~255 Horizontal move selection in position 128~255 Vertical rotation selection in speed 128~255 Horizontal move selection in position 128~255 Vertical rotation selection in position 128~25	CHA	Group A Patterns	128~191	speed adjustment in reverse rotation
horizontal rotation 128~255 Horizontal rotation selection in speed 1~127 Vertical rotation selection in position 128~255 Vertical rotation selection in speed 1~127 Vertical rotation selection in speed 1~127 Horizontal move selection in speed 1~127 Horizontal move selection in position 128~255 Horizontal move selection in speed 1~127 Horizontal move selection in position 128~255 Horizontal move selection in speed 1~127 Vertical move selection in position 128~255 Horizontal move selection in speed 1~127 Vertical move selection in position Vertical move selection in speed 128~255 Vertical move selection in speed 128~255 Vertical move selection in speed Vertical move selection Vertical move selection in speed Vertical rotation Vertical move selection in speed Vertical rotation Vertical rotation in speed Vertical rotation in position Ver	CH4	rotation	192~255	speed adjustment in positive rotation
CH6 Group A Patterns vertical rotation 1~127 vertical rotation selection in position CH7 Group A Patterns horizontal move move phorizontal move selection in speed 1~127 Horizontal move selection in speed CH8 Group A patterns vertical move 1~127 Horizontal move selection in speed CH8 Group A patterns vertical move 1~127 Vertical move selection in speed CH8 Group A patterns vertical move 1~127 Vertical move selection in speed CH9 Group A Pattern size Group A Pattern gradually drawing — Group A Point effect 128~255 Jeach selection Adjustment in gradually drawing speed CH11 Group A Color mode 128~255 Jeach selection in Color change effect 128~255 Jeach selection in Golor change effect CH12 Group A Color mode 128~255 Jeach selection in Group Mattern group group selecting 1~227 Jeach selection in Group Mattern group group group selection CH13 Group B Patterns selecting 0~255 Jeach selection in gradually drawing group gr	CH5	Group A Pattern	1~127	Horizontal rotation selection in position
CH7 Group A Patterns horizontal move phorizontal move selection in speed 1~127 Horizontal move selection in position CH8 Group A patterns horizontal move selection in speed 1~127 Horizontal move selection in speed CH8 Group A patterns vertical move selection in speed 1~127 Vertical move selection in speed CH9 Group A Pattern size selection 4~127 Reduce speed selection Group A Pattern gradually drawing — Group A Point effect 128~255 CH11 Group A Color mode Speed 0~127 Adjustment in scanning speed CH12 Group A Color mode Speed Selection in Color change effect CH13 Group A Biggest pattern Selecting 0~255 Speed selection in Glowing Water effect CH14 Pattern B group selecting 0~255 Speed selection in gradually drawing CH15 Group B Patterns selecting 0~255 Speed selection in gradually drawing CH16 Group B Patterns rotation 0~255 Speed selection in gradually drawing CH16 Group B Patterns rotation 0~255 Speed selection in group per 32 value CH16 Group B Patterns rotation 128~191 Speed adjustment in reverse rotation CH16		horizontal rotation	128~255	Horizontal rotation selection in speed
CH7 Group A Patterns horizontal move 128~255 Horizontal move selection in position 128~255 Horizontal move selection in speed 1~127 Vertical move selection in speed 1~127 Vertical move selection in speed 1~128~255 Vertical rotation selection in speed 1~128~255 Vertical rotation selection in position 1~128~255 Vertical rotation selection in speed 1~128~255 Ver	CH6	Group A Patterns	1~127	Vertical rotation selection in position
CH7 horizontal move 128~255 Horizontal move selection in speed CH8 Group A patterns vertical move 1~127 vertical move selection in position CH9 Group A Pattern size Group A Pattern size scaling 1~63 Pattern size selection Group A Pattern size scaling 128~191 20om in speed selection Group A Pattern gradually drawing gradually drawing gradually drawing gradually drawing gradually drawing speed 1~127 Adjustment in gradually drawing speed CH10 Group A Point effect 128~255 Adjustment in scanning speed CH11 Group A Point effect 128~255 Adjustment in scanning speed CH12 Group A Point effect 128~255 Adjustment in scanning speed CH12 Group A Color mode 128~255 Fixed color selection CH12 Group A Biggest pattern 5peed selection in Color change effect CH13 Group A Biggest pattern 0~255 Speed selection in gradually drawing CH14 Pattern B group selecting 0~255 Speed selection in gradually drawing CH15 Group B Patterns selecting 0~255 one Pattern group per 32 value CH16 Group B Patterns rotation 128~191 speed adjustment in position CH16 Group B Patterns rotation 128~255 horizo		vertical rotation	128~255	Vertical rotation selection in speed
CH8 Croup A patterns vertical move CH9 CH9 CH9 CH9 CH9 CH9 CH9 CH9 CH9 CH	61.17	Group A Patterns	1~127	Horizontal move selection in position
CH8 Group A patterns vertical move 128~255 Vertical move selection in speed CH9 Group A Pattern size Group A patterns scaling 1~63 Pattern size selection Group A patterns scaling 128~191 Pattern gradually drawing produally drawing producing speed 1~127 Pattern gradually drawing speed CH11 Group A Pattern gradually drawing producing producing speed 0~127 Pattern gradually drawing speed CH11 Group A Scanning speed 0~127 Pattern group producing speed CH12 Group A Color mode 128~255 CH13 Group A Biggest pattern pattern pattern 0~255 Speed selection in Glowing Water effect CH14 Pattern B group selecting 0~255 Speed selection in gradually drawing probably drawing pattern pattern CH15 Group B Patterns selecting 0~255 Speed selection in gradually drawing probably drawing pattern proup per 32 value CH16 Group B Patterns rotation 0~255 Speed adjustment in reverse rotation CH17 Group B Patterns rotation 1~127 Rotation angle selection in position CH18 Group B Patterns vertical rotation 1~127 Vertical rotation selection in position CH19 Group B Patterns vertical rotation 1~127 Vertical rotation selection in position	CH/	horizontal move	128~255	Horizontal move selection in speed
CH8 vertical move 128~255 vertical move selection in speed CH9 Group A Pattern size 1~63 Pattern size selection Group A patterns scaling 128~191 Zoom in speed selection CH10 Group A Pattern gradually drawing — Group A Pattern gradually drawing — Group A Pattern gradually drawing — Group A Point effect 128~255 Adjustment in gradually drawing speed CH11 Group A Scanning speed 0~127 Adjustment in scanning speed CH12 Group A Point effect 128~255 Adjustment in scanning speed CH12 Group A Color mode 128~255 Fixed color selection CH12 Group A Color mode 128~191 Speed selection in Color change effect CH13 Group A Biggest pattern Speed selection in gradually drawing CH14 Pattern B group selecting 20~255 Speed selection in gradually drawing CH15 Group B Patterns selecting 0~255 one Pattern group per 32 value CH16 Group B Patterns rotation 128~191 speed adjustment in reverse rotation CH16 Group B Patterns horizontal rotation 128~127 Horizontal rotation selection in position CH17 Group B Patterns horizontal rotation 1~127 Vertical rotation selection in position CH18 Group B			1~127	vertical move selection in position
	CH8		128~255	Vertical move selection in speed
CH10 Group A patterns scaling Group A Pattern gradually drawing Group A Pattern gradually drawing Group A Point effect CH11 Group A Color mode CH12 Group A Biggest pattern pattern pattern CH14 Group B Patterns selecting CH15 Group B Patterns rotation CH16 Group B Patterns rotation CH17 Group B Patterns horizontal rotation CH18 Group B Patterns vertical rotation CH19 Group B Patterns vertical rotation CH19 Group B Patterns vertical rotation CF19 Group B Patterns vertical rotation I 28~255 Joeom in speed selection Adjustment in gradually drawing speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Speed selection Adjustment in gradually drawing Speed selection in flowing Water effect Speed selection in gradually drawing Speed selection in gradually drawing speed Adjustment in scanning speed Adjustment in scanning speed Speed selection in flowing Water effect Speed selection in gradually drawing speed Adjustment in scanning speed Adjustment in scanning speed Adjustment in scanning speed Speed selection in Golor change effect Speed selection in gradually drawing Speed selection in gradually drawing Adjustment in scanning speed O~127 Speed selection in flowing Water effect Speed selection in gradually drawing Speed selection in gradually drawing Adjustment in scanning speed O~127 Speed selection in Golor change effect		Cuarra A Datharra aire	1~63	Pattern size selection
Group A patterns scaling $128 \sim 191$ Zoom in speed selection $192 \sim 255$ zoom speed selection $192 \sim 255$ zoom speed selection $1 \sim 127$ Group A Pattern gradually drawing $1 \sim 127$ Group A Pattern gradually drawing $1 \sim 127$ Group A Point effect $128 \sim 255$ $1 \sim 127$ Adjustment in gradually drawing speed $128 \sim 255$ Group A Point effect $128 \sim 255$ $1 \sim 127$ Adjustment in scanning speed $128 \sim 127$ Speed selection $1 \sim 127$ Speed selection in Color change effect $128 \sim 191$ Speed selection in flowing Water effect $128 \sim 191$ Speed selection in gradually drawing $1 \sim 125$ Speed selection from big to small $1 \sim 125$ One Pattern group per $1 \sim 125$ Speed selection $1 \sim 125$ One Pattern group per $1 \sim 125$ One Pattern group per $1 \sim 125$ One Pattern per $1 \sim 125$	CLIO	Group A Pattern size	64~127	Reduce speed selection
Group A Pattern gradually drawing — Group A Pattern gradually drawing = Group A Pattern gradually drawing = 128~255	CH9	Group A patterns	128~191	Zoom in speed selection
$ \begin{array}{c} {\rm Group\ A\ Pattern} \\ {\rm Group\ A\ Pattern} \\ {\rm gradually\ drawing} = \\ {\rm Group\ A\ Scanning} \\ {\rm Speed} \\ {\rm Group\ A\ Point\ effect} \\ {\rm Group\ A\ Point\ effect} \\ {\rm I28} \sim 255 \\ {\rm I28} \sim 127 \\ {\rm I28} \sim 127 \\ {\rm I28} \sim 191 \\ {\rm I28} \sim $		scaling	192~255	zoom speed selection
CH10 Group A Pattern gradually drawing = 128~255 Group A Scanning speed Group A Point effect 128~255 CH11 Group A Point effect 128~255 CH12 Group A Color mode 128~191 CH13 Group A Biggest pattern pattern selecting CH14 Pattern B group selecting CH15 Group B Patterns selecting CH16 Group B Patterns rotation CH17 Group B Pattern horizontal rotation CH18 Group B Patterns vertical rotation CH18 Group B Patterns vertical rotation CH18 Group B Patterns vertical rotation CH19 Group B Patterns vertical rotation T~127 Horizontal move selection in position Adjustment in scanning speed Adjustment in scanning speed Speed selection Group selection 128~255 Speed selection in flowing Water effect Speed selection in pead adjustment is the biggest pattern, and selection in position Speed selection in position Speed selection in flowing Water effect Spee		Group A Pattern	1. 127	Adjustment in gradually drawing speed
Group A Pattern gradually drawing $=$ 128 \sim 255 Group A Scanning speed 0 \sim 127 Speed Group A Point effect 128 \sim 255 CH12 Group A Color mode $=$ 128 \sim 191 Speed selection in Color change effect 192 \sim 255 Speed selection in gradually drawing 2com adjustment is the biggest pattern $=$ 10 \sim 255 Speed selection in gradually drawing 2com adjustment is the biggest pattern $=$ 10 \sim 255 Speed selection in gradually drawing 2com adjustment is the biggest pattern $=$ 10 \sim 255 Speed selection in gradually drawing 2com adjustment is the biggest pattern $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection from big to small $=$ 10 \sim 255 Speed selection in gradually drawing $=$ 2com adjustment is the biggest pattern $=$ 10 \sim 255 Speed selection in gradually drawing $=$ 2com adjustment is the biggest pattern $=$ 10 \sim 255 Speed selection in gradually drawing $=$ 2com adjustment is the biggest pattern $=$ 10 \sim 255 Speed selection in gradually drawing $=$ 2com adjustment is the biggest pattern $=$ 2com adjustment is the biggest pattern $=$ 2com adjustment is the biggest pattern $=$ 2com adjustment in gradually drawing $=$ 2com adjustment is the biggest pattern $=$ 2com adjustment in gradually drawing $=$ 2com adjustment in gradually drawing $=$ 2com adjustment in gradually drawing $=$ 2com adjustment in color charge $=$ 2com adjustment in gradually drawi	CU10	gradually drawing —	1,~12,	
CH11 Group A Scanning speed $0\sim127$ Group A Point effect $128\sim255$ $CH12 Group A Color mode CH12 Group A Color mode CH14 Group A Biggest pattern Selecting Group B Patterns Selecting CH15 Group B Patterns rotation Totation CH17 Group B Pattern Horizontal rotation CH17 Group B Pattern Service CH18 Group B Pattern Selection CH18 Group B Pattern Selection CH18 Group B Pattern Selection CH19 Group B Patterns Totation Text Selection CH19 Group B Patterns Text Selection CH19 Gro$	CUIO	Group A Pattern	120. 255	
CH11 speed $0 \sim 127$ Group A Point effect $128 \sim 255$ $0 \sim 63$ Fixed color selection $64 \sim 127$ Speed selection in Color change effect $128 \sim 191$ Speed selection in flowing Water effect $192 \sim 255$ Speed selection in gradually drawing $120 \sim 192 \sim$		gradually drawing \equiv	120 - 255	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Group A Scanning	0∼127	Adjustment in scanning speed
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	CH11	speed	0 127	
CH12 Group A Color mode		Group A Point effect	128~255	
CH12 Group A Color mode $128\sim191$ Speed selection in flowing Water effect $192\sim255$ Speed selection in gradually drawing $20\sim255$ Speed selection in gradually drawing $20\sim255$ Speed selection in gradually drawing $20\sim255$ Speed selection from big to small $20\sim255$ Selecting $20\sim255$ One Pattern group per 32 value $20\sim255$ One Pattern per $20\sim255$ One pattern per $20\sim255$ One pattern per $20\sim255$ Speed adjustment in reverse rotation $20\sim255$ Speed adjustment in positive rotation $20\sim255$ Speed adjustment in position $20\sim255$ Speed ad			0∼63	Fixed color selection
CH13 Group A Biggest pattern CH14 Pattern B group selecting CH15 Group B Patterns selecting CH16 Group B Patterns rotation CH17 Group B Pattern horizontal rotation CH18 Group B Patterns rotation CH19 Horizontal rotation selection in position CH19 Horizontal move selection in position CH19 Horizontal move selection in position				
CH13 Group A Biggest pattern $0\sim255$ zoom adjustment is the biggest pattern , and selection from big to small $0\sim255$ one Pattern group per 32 value $0\sim255$ one Pattern group per 32 value $0\sim255$ one pattern per16 value $0\sim255$ speed adjustment in reverse rotation $0\sim255$ speed adjustment in positive rotation $0\sim255$ speed adjustment in position $0\sim255$	CH12	Group A Color mode	128~191	Speed selection in flowing Water effect
CH13 pattern $0\sim255$ selection from big to small $0\sim255$ one Pattern group per 32 value $0\sim255$ one pattern per16 value $0\sim255$ one pattern in reverse rotation $0\sim255$ one pattern per16 value $0\sim255$ one pattern per16 value $0\sim255$ one pattern in reverse rotation $0\sim255$ speed adjustment in reverse rotation $0\sim255$ speed adjustment in positive rotation $0\sim255$ one pattern in positive rotation $0\sim255$ one pattern in reverse rotation $0\sim255$ speed adjustment in positive rotation $0\sim255$ or $0\sim255$ one pattern in reverse rotation $0\sim255$ one pattern per16 value $0\sim2555$ one pattern per16 value $0\sim2555$ one pa			192~255	, , ,
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	CH13	Group A Biggest	0~255	
CH14 selecting Group B Patterns selecting $1\sim127$ Rotation angle selection CH16 Group B Patterns rotation CH17 Group B Pattern $128\sim191$ speed adjustment in reverse rotation CH17 Group B Pattern $1\sim127$ Horizontal rotation selection in position CH18 Group B Patterns $1\sim127$ Horizontal rotation selection in speed CH18 Group B Patterns $1\sim127$ Vertical rotation selection in position Vertical rotation CH19 Group B Patterns $1\sim127$ Vertical rotation selection in speed CH19 Group B Patterns $1\sim127$ Horizontal move selection in position	01113	·	0 200	selection from big to small
CH15 selecting $1\sim127$ Rotation angle selection $1\sim127$ Rotation angle selection $128\sim191$ speed adjustment in reverse rotation $192\sim255$ speed adjustment in positive rotation $192\sim255$ speed adjustment in positive rotation $1\sim127$ Horizontal rotation selection in position $128\sim255$ Horizontal rotation selection in speed $1\sim127$ Vertical rotation selection in position vertical rotation $128\sim255$ Vertical rotation selection in speed $1\sim127$ Horizontal move selection in position $1\sim128\sim255$ Horizontal move selection in position $1\sim127$ Horizontal move selection in position	CH14		0∼255	one Pattern group per 32 value
CH16 Group B Patterns rotation $128\sim191$ speed adjustment in reverse rotation $192\sim255$ speed adjustment in positive rotation $192\sim255$ speed adjustment in positive rotation $1\sim127$ Horizontal rotation selection in position $128\sim255$ Horizontal rotation selection in speed $1\sim127$ Vertical rotation selection in position vertical rotation $128\sim255$ Vertical rotation selection in speed $1\sim127$ Horizontal move selection in position $1\sim127$ Horizontal move selection in position	CH15	•	0∼255	one pattern per16 value
CH16 rotation $192\sim255$ speed adjustment in positive rotation $1\sim127$ Horizontal rotation selection in position $1\sim128\sim255$ Horizontal rotation selection in speed $1\sim127$ Vertical rotation selection in position $1\sim128\sim255$ Vertical rotation selection in position vertical rotation $1\sim127$ Vertical rotation selection in speed $1\sim127$ Vertical rotation selection in speed $1\sim127$ Horizontal move selection in position			1~127	Rotation angle selection
rotation $192\sim255$ speed adjustment in positive rotation $1\sim127$ Horizontal rotation selection in position $1\sim128\sim255$ Horizontal rotation selection in speed $1\sim127$ Vertical rotation selection in position vertical rotation $128\sim255$ Vertical rotation selection in position $128\sim255$ Vertical rotation selection in speed $1\sim127$ Horizontal move selection in position	CU1C	Group B Patterns	128~191	speed adjustment in reverse rotation
horizontal rotation $128\sim255$ Horizontal rotation selection in speed $1\sim127$ Vertical rotation selection in position vertical rotation $128\sim255$ Vertical rotation selection in speed $1\sim127$ Vertical rotation selection in speed Group B Patterns $1\sim127$ Horizontal move selection in position	C1110	rotation	192~255	speed adjustment in positive rotation
CH18 Group B Patterns $1\sim127$ Vertical rotation selection in position vertical rotation $128\sim255$ Vertical rotation selection in speed $1\sim127$ Horizontal move selection in position	CH17	Group B Pattern	1~127	Horizontal rotation selection in position
vertical rotation $128\sim255$ Vertical rotation selection in speed $1\sim127$ Horizontal move selection in position		horizontal rotation	128~255	Horizontal rotation selection in speed
Group B Patterns $1{\sim}127$ Horizontal move selection in position	CH18	Group B Patterns	1~127	Vertical rotation selection in position
CH19		vertical rotation	128~255	Vertical rotation selection in speed
UII7 horizontal mayo 120 255 Laufacutal mayor and attention to an ad-	CLIA	Group B Patterns	1~127	Horizontal move selection in position
Horizontal move selection in speed	CU19	horizontal move	128~255	Horizontal move selection in speed

CUIDO	Group B patterns	1~127	vertical move selection in position
CH20	vertical move	128~255	Vertical move selection in speed
	Group B Pattern size	0∼63	Pattern size selection
CH21	Croup B nottorns	64~127	Reduce speed selection
CHZI	Group B patterns	128~191	Zoom in speed selection
	scaling	192~255	zoom speed selection
CH22	Group B Pattern gradually drawing —	0∼127	Adjustment in gradually drawing speed
СП22	Group B Pattern gradually drawing 二	128~255	
CH23	Group B scanning speed	0∼127	Adjustment in scanning speed
	Group B Point effect	128~255	
		0∼63	Fixed color selection
CH24		64~127	Speed selection in Color change effect
	Group B Color mode	128~191	Speed selection in flowing Water effect
		192~255	Speed selection in gradually drawing
CH25	Group B Biggest	0∼255	zoom adjustment is the biggest pattern , and
CITZJ	pattern	0 233	selection from big to small

• Maintenance

It is very important to keep the RGB Animation laser light clean, therefore please clean Dust-proof glass monthly to keep the lights away from dust, dirt or fog juice.