

Instruction Manual

(RGB 10W/12W Animation Laser Lighting)



This user manual contains important information about the safe installation and use of this product. Please read and follow the instruction carefully and keep this manual in a safe place for future reference.



Professional stage lighting

Getting Started

Thanks for choosing our product, please read and follow the instruction carefully and keep this manual in a safe place for future reference.

This high power laser projector is made of Aluminum housing, with elegant appearance, energy-saving, long lifetime, suitable for indoor use.

The product is designed and produced strictly as per CE standard, in accord with international DMX512 protocol. One product can be controlled alone or many products can be controlled together for big shows, theaters, studios, KTV, walls of the hotel etc..

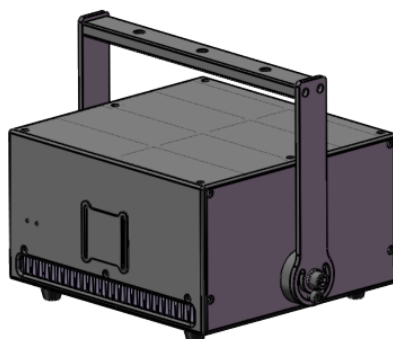
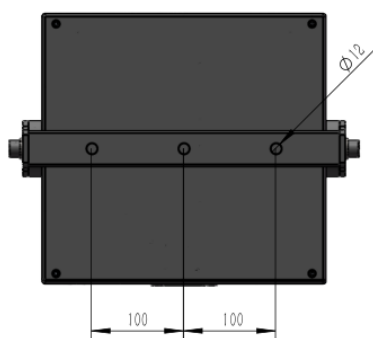
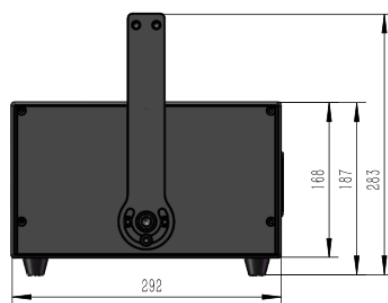
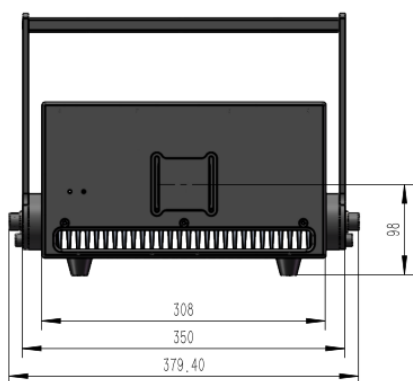
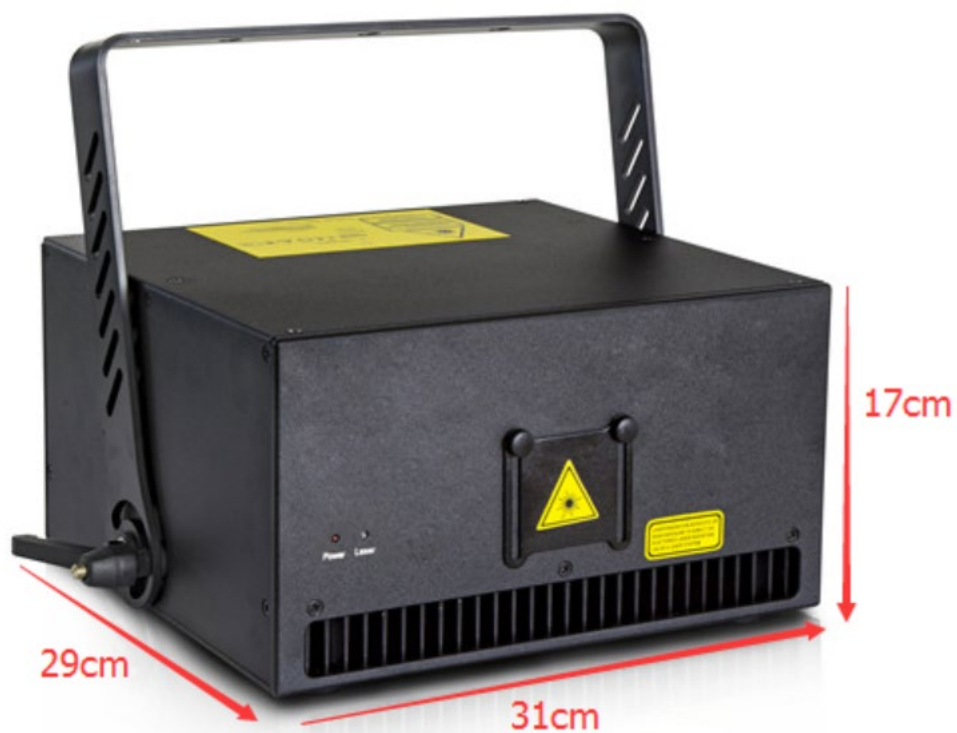
1. Security warning:

- 1、 When unpacking and before disposing of the carton, check if there is any transportation damage before using the product. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.
- 2、 Do not install the product or project the beam onto inflammable surfaces. Minimum distance is 5 M.
- 3、 The product is only intended for installation, operation and maintenance by qualified personnel.
- 4、 Product should install in a cool place. Keep away from the wall 50cm.
- 5、 Avoid direct exposure to the light from the lamp. The light is harmful to eyes.
- 6、 Keep the optical system clean. Do not touch the laser reflect lens with bare hands. Do not use any alcohol liquid or any other liquid to clean the optical system. Use medicinal absorbent cotton to clean it.
- 7、 Please do not attempt to dismantle and/or modify the product inner structure. Otherwise 1 year of warranty will get invalid.
- 8、 Before installation, ensure that the voltage and frequency of power supply match the power requirement of the product.
- 9、 It is essential that each product is correctly earthed and that electrical installation conforms to all relevant standards.
- 10、 Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- 11、 There is no user serviceable parts inside the product, do not open the housing and never operate the product with the cover removed.

2. Technical parameters:

| Description | parameters |
|-----------------------------|--|
| Laser power | 10W / 12W |
| Product name | RGB 10W / 12W animation laser lighting |
| Red laser module: | 638nm 3W / 4W laser diode |
| Green laser module: | 525nm 3W / 4W laser diode |
| Blue laser module: | 445nm 4W laser diode |
| Special effect | Different patterns of colorful beam, wave and line |
| Beam size: | 4*5mm |
| Connector In | ILDA、SD card、DMX、Mic |
| Connector Out | ILDA、DMX |
| Voltage & power | 220Vac, 50/60Hz (±10%), 350W |
| Scanner | 40Kpps |
| Working/Storage temperature | —20 -40℃ |
| Net weight | 14.5Kg / 15.5kg |
| Size (L x W x H): | 290×310×170mm |
| Control mode | ILDA、SD card、Auto、DMX 512、Sound |
| Other features | Air cooling, RGB brightness adjustable individually, XY mirror image & pattern size adjustable, XY scanner system, optical components hermetically sealed, 10 Second warm-up time, low-power scanning electronic protection system, no special maintenance needed. |
| Laser Safety | keyed power switch, chain device, safety current protection for scanning failure. |

3. Product size display:



4. Main function:

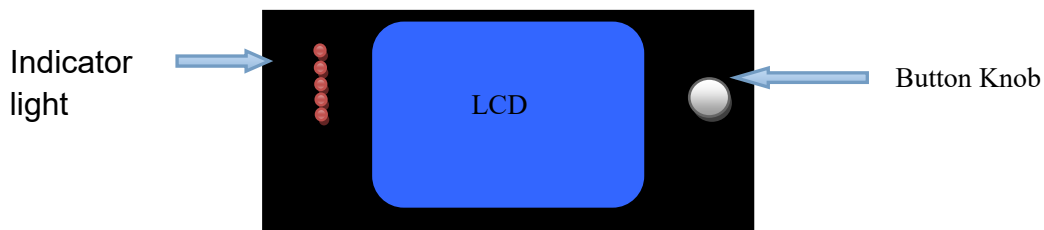
Auto mode: from the LCD display ILDA Lock option, click ON/OFF to start the Auto mode.

ILDA mode: When you use software to control the laser, connect the ILDA cable to the computer.

ILDA to RJ45: from the "ILDA Lock" option, select "on" mode, connect the signal cable.

DMX mode: connect the DMX cable to the lighting console, then ready to operate.

5. LCD display as follows:



Using the tap button and LCD menu display function, the menu operation is easy.

From the button and knob to select the function.

Click to select the function, double-click to return to the main menu.

The LCD function display description:

| | |
|----------|----------------|
| Auto/自走 | SD List/ SD 列表 |
| Sound/声控 | exFlash/存储列表 |
| DMX: x | Setting/设置 |
| Slave/从机 | Device/设备参数 |

DMX: x - x represents the current address code.

| Main Menu | Secondary Menu | Project | Range | Default | Function | Description |
|-----------|----------------|--|---------|--|---------------------------|---|
| Auto Menu | | Auto Menu | | | Title | Click the title to return to upper level menu |
| | | Show | Max 25 | 0 Default | Built-in show | On editing mode title bar will display the actual serial number |
| | | Display the built-in program | | {Default},{Northernlighting}{Triangle1},{Triangle2},{Line}{Round1},{Round2},{Rectangular 1},{Rectangular 2},{Curve},{Grating 1},{Grating 2},{grating 3},{Hybrid},{Custom 1}, | | |
| | | step | Max 128 | Cycle | Choose the number of show | Cycle cycleplay the numbered effect cue |
| | | Serial number: Group value: Item value | | Serial number value step Group value and subscript item value indicate built-in data corresponding subscrip, you can | | |

| | | | | | | | |
|------------|-----|--|---------|-----------------------------|---|---|-------|
| | | | | edit and modify those data. | | | |
| | | rate | 1-49 | 5 | Play rate | Set auto play rate | |
| Sound Menu | | Sound Menu | | | title | Click title to return to upper menu, on the right there is sound control strobe logo | |
| | | Show | Max 25 | 0 | Built in show program | Enter editing mode the title bar will display the actual serial number | |
| | | Display the built-in show | | | {Default"}, {"Northernlight"} {"Triangle1"}, {"Triangle2"}, {"Line"} {"Round1"}, {"Round2"}, {"Rectangular1"}, {"Rectangular2"}, {"Curve"}, {"Grating1"}, {"Grating2"}, {"grating3"}, {"Hybrid"}, {"Custom 1"}, | | |
| | | step | Max 128 | Cycle | Choose the show number | Cycle cycleplay the numbered effect cue | |
| | | Serial number: Group value: Item value | | | Serial numbered step Group value and subscript item value indicate built-in data corresponded subscrip, you can edit and modify these data later by software | | |
| | | Sensitivity | 1-25 | 5 | Sound sensitivity | Bigger value gets bigger action effect, vice versa. | |
| | | Clear | | Remove noise | When power on it will automatically remove once, please keep quiet. Approx. 1 second done. If the sound mode acts like the auto mode, please click this key. | | |
| | | DMX Menu | | DMX Menu | | | title |
| Type | 1-9 | | | 6 26ch | DMX channel selection | 9 types DMX program: "1 12ch": simple and easy "2 16ch": ADAPTS to previous touch screen boards "3 17ch": balance "4 18ch": 17ch+total dimmer channel "5 20ch" "6 23ch" "7 25ch" : complete function | |

| | | | | | | | |
|---------------|---|----------------------|------------|-------|--|--|--|
| | | | | | | "8 26ch":25ch+total dimmer channel "9 27ch":26ch+boundary channel | |
| | | start add | 1-512 | 1 | set | DMX start adress | |
| Slave Menu | | Slave Menu | | | Title | Click title to return to upper menu | |
| | | slave mode | | slave | Make sure master not on slave, Dmx, SD mode. Disconnect dmx console, only one master, other are slaves | | |
| SD Program | This menu can be only seen with SD card | SD Program | | | Title | Click title to return to upper menu | |
| | | Show | Max 10 | Cycle | Play program | Cycle play all the program (0-10)Play corresponding programs Each program contains multiple files. In ILDA_user software you can open play/play.list to check the program. | |
| | | Display program name | | | Play files ".csv" in the play folder | | |
| | | File | Max 83 | Cycle | Play file | Cycle play all the programs (0-299)Play corresponding programs | |
| | | Display program name | | | Ilda file name | | |
| | | Mode | auto/sound | Auto | Indicates sound or auto play | | |
| | | Rate | 1-50 | 1 | Play rate, 1 fastest, 50 slowest | Play the file with the set speed, bigger value results in faster speed. Default: play at the set frame rate in the SD card. It is not the scanner speed. | |
| exF List Menu | | exF List Menu | | | Title | Click the menu to return to upper level | |
| | | Show 文册 | Max 5 | Cycle | Play program | Cycle play all the list. Open the following files in ILDA_user software to check: updata/ ex_play.list: including gobo, | |

| | | | | | | |
|--------------|------------|--------------------------|---|------------------------------------|--|---|
| | | | | | | cartoon, animal, beam, customization. update/ ex_play_cn.list: including gobo, cartoon, animation, beam, customization. |
| | | Display the program name | | It is file “.csv” in update folder | | |
| | | File | Max 25 | Cycle | Play the file | Cycle play all the file |
| | | Display the file name | | It is ilda file name | | |
| | | Mode | auto/sound | Auto | Indicates sound trigger or autoplay. | |
| | | Rate | 1-50 | 1 | Play rate, 1 is slowest, 50 fastest. | Play the file with the set speed, bigger value get faster speed. Default: play with the frame rate set in the memory chip. It is not the scanner speed. |
| Setting Menu | Scan-speed | test pattern | Circle | | | |
| | | | TOP | | | |
| | | | color | | | |
| | | | rect | | | |
| | | Linkage | Yes/no | Yes | Scan parameter to link or not (default linked) | Yes : scan rate , prelight, blanking are subject to scan speed. No: scan parameter is independent, not subject to scan speed |
| | | Scan Speed | "42K7" "39K1" "36K1" "33K5" "31K3" "29K3" "26K1" "20K4" "15K2" "10K" | 33K5 | Scan speed | Actual products may fix or limit the scanning speed, when testing the scan speed please set linkage at No and the scan rate at max) |
| | | -Scan | 5-50 | 45 | Scanner scan | The difference with the |

| | | | | | | | |
|--|--------------|-----------------|--------------|------|---------------------|--|--|
| | | rate | | | frame rate | scan speed: it is affected by the number of points in the current graphic. To avoid simple graphic playing with excessive rate under the current scan speed, to protect the scanner. | |
| | | -prelight: | 1-50 | 5 | Pre-light delay | Pre-light delay: the time that the laser module waiting for the scanner to reach the designated spot before lighting up. This parameter may need to be adjusted for tightly controlled blanking dot effect | Because the laser module speed is faster than scanner speed, it is related to the minimum step |
| | | -Blanking time: | 1-50 | 2 | Blanking time | Blanking time, laser module lag the scanner work time | response time of scanner and the signal output speed of the control board |
| | DB25-ILDA XY | X Mirror | Yes/no | No | X mirror | | |
| | | Y Mirror | Yes/no | No | Y mirror | | |
| | | ildaSwitch | Off/on/ auto | Auto | Ilda switch setting | off: switch to built-in program. on : switch to DB25 connector ILDA auto: when connecting | |

| | | | | | | |
|------------------------|------------|--|-----|----------------------|---|--|
| | | | | | | DB25 , play DB25 connector ILDA. When disconnecting DB25 , play the built-in program |
| XY [internal XY] | XY Size | 0-100 | 100 | Total size | X and Y change at the same time | |
| | X Size | 0-100 | 100 | X Size | | |
| | Y Size | 0-100 | 100 | Y Size | | |
| | X Position | 0-100 | 50 | X deviation position | | |
| | Y Position | 0-100 | 50 | Y deviation position | | |
| | X Mirror | yes, no | No | X mirror | | |
| | Y Mirror | yes, no | No | Y mirror | | |
| | XY Swap | yes, no | No | XY swap | | |
| Color | Color | Single, RtoG, RtoB, GtoR, GtoB, BtoR, BtoG, RGB/全彩 | RGB | Color type | RtoG, RtoB, GtoR, GtoB, BtoR, BtoG, suitable for 2 pcs laser heads. For example when you use RtoG, red will overlap green | |
| | type | "turn off" "normal" "all is bright" | | | All is bright: there is no blanking dots | |
| | Laser | "ANG" " TTL" | | | With "ANG" ALL, Red, Green , Blue range is 0-100 With "TTL" ALL, Red, Green, Blue range is 0-1 | |
| | ALL | 0-100 | 100 | Total brightness | When modified, red , green and blue will change at the same time | |
| | Red | 0-100 | 100 | Red brightness | | |
| | Green | 0-100 | 100 | Green brightness | | |
| | Blue | 0-100 | 100 | Blue brightness | | |
| FFT/Sound | Clear | | | Clear noise | When turn on laser it | |

| | | | | | | |
|--|-----------------|-------------|----------|------|--------------------------|--|
| | | | | | | will clear automatically once, please keep quiet when it is clearing. Approx. a second after pressing the button will finish clearing noise. |
| | | run times | 5-30 | 5 | Sound softness | Bigger value for better softness, smaller value for better sense of motion. |
| | | black delay | 1-50 | 10 | Black delay time | 0.1 second to 5 seconds |
| | | Threshold | 0-100 | 22 | Sound threshold | Sound threshold value: sound over the value will trigger <sound event>, indicated with red line. |
| | | start Freq | 0-31 | 6 | movement start frequency | To be placed before the rhythm sound frequency, the interval color is yellow |
| | | end Freq | 0-31 | 26 | Movement end frequency | To be placed after the rhythm sound frequency, the interval color is yellow |
| | SD [SD card] | max point | 100-1300 | 1300 | Max point for each frame | Extra points exceeding this quantity will be discarded or continue playing depending on "frame_split" Max 1300, When choose "ilda" file, please consider this, don't exceed the value. in the future will be max 2000 |

| | | | | | | | |
|---------------|-------------|-------------|------------|-------|-----------------------------|---|--------------------|
| | | frame_split | yes, no | no | frame_split function | No: discard the latter points. Yes: the latter points will continue playing alone at a single frame, but the pattern will flash. | retention function |
| DMX [DMX] | | Dmx speed | 0-150 | 15 | Dmx interval of same action | 0: complete real-time respond with dmx step. Bigger value get better action softness. Modifying dmx step will automatically modify Dmx speed, Dmx speed = dmx cross * 3. If want separate setting of Dmx speed, after set it please don't set "dmx step" anymore. | |
| | | dmx step | 0-50 | 5 | Dmx action fade in | 0: complete real-time respond. Bigger value gets better action softness with no flicker, but with more delay time. | |
| | [catch DMX] | Catch DMX | 0-512 | | unused | DMX channel number to catch, normally unused | |
| | Safe THR | | off, 1-100 | off | Protection threshold | off: unprotected, (1-100) bigger value gets bigger protection range | |
| | shutter use | | | off | | When "on": any unsafe situations will emit low level signal to shutter. Default is "off" | |
| | Interpolate | | yes, no | yes | Choose interpolate | Low speed will have interpolate, fast speed will not have. It depend on human visual effect. | |
| | | | | | | | |
| Device Detail | Language | | Ch/ En | | | Only switch to other menu, that the language will change. | |
| | closed time | | No | 5 min | | The time that the LCD | |

| | | | | | | |
|--|-----------------|--|--|--|--|--|
| | | | 30 seconds 1 minute 3 minute 5 minute 10 minute 30 minute 1 hour | | | screen light off after the last operation. Rotating the knob, screen will light up again. No: always light up. |
| | RESET parameter | | | | reset parameter value is the initial value | Device will restart after reset |
| | REV | | V1.3.2 | | Device version number | |
| | | | | | Chip and memory information | |
| | | | | | memory usage information | history record, this time record, current record |
| | | | | | Stored information | |
| | T:x + date | | Data/date | | Program generated date | Date in English format |
| | | | T:x | | X indicates the saved times of operation | |

6. Channel description:

12 channel mode

| channel | value | function | description |
|---------|---------|-----------------------------|------------------------------------|
| 1 | 0-39 | off | |
| | 40-79 | sound | |
| | 80-119 | auto | |
| | 120-159 | Animation(storage) | |
| | 160-199 | animation (sd) | |
| | 200-255 | Dmx auto | |
| 2 | 0 | off | |
| | 1 | Fixed color | |
| | 2-15 | 7 segment pure color | One color every 2 values |
| | 16-19 | 7 segment pure color change | |
| | 20-33 | 7 segment color | switch to a segment every 2 values |

| | | | |
|-----------|---------|---------------------------------------|--------------------------------------|
| | 34-37 | 7 segment color change | |
| | 38-154 | Toning section | Check the manual |
| | 155-255 | Toning flow | |
| 3 | 0-255 | graphic | Step value:2 |
| 4 | 0-127 | Manual vertical movement | |
| | 128-191 | Forward automatic vertical movement | |
| | 192-255 | Reverse automatic movement | |
| 5 | 0-127 | Manual horizontal movement | |
| | 128-191 | Forward automatic horizontal movement | |
| | 192-255 | Reverse automatic horizontal movement | |
| 6 | 0-127 | Manual vertical flip | |
| | 128-255 | Automatic vertical flip | |
| 7 | 0-127 | Manual horizontal flip | |
| | 128-255 | Automatic horizontal flip | |
| 8 | 0-127 | Manual rotation | |
| | 128-191 | Forward automatic rotation | |
| | 192-255 | Reverse automatic rotation | |
| 9 | 0-85 | Forward automatic zoom | |
| | 86-170 | Reverse automatic zoom | |
| | 171-255 | Alternate automatic zoom | |
| 10 | 0-255 | Graphical size | |
| 11 | 0-63 | Normal display | |
| | 64-127 | Highlight display (with points) | The smaller value, the more points |
| | 128-191 | Segment display | The smaller value, the more segments |
| | 192-255 | Points display | |
| 12 | 0-127 | Gradual draw 1 | |
| | 128-255 | Gradual draw 2 | |

16channel mode

| channel | | value | | remark |
|---------|----------------|--------|---------------------|----------|
| 1 | Mode selection | 0-70 | Laser off | |
| | | 71-90 | Storage manual mode | |
| | | 91-110 | Storage automatic | Former 3 |

| | | | | | | |
|---|---------------------|---------|---|----------------------------|------------------------------------|-------------|
| | | | mode | channels | | |
| | | 111-130 | Storage sound mode | workable | | |
| | | 131-150 | SD manual mode | | | |
| | | 151-170 | SD automatic mode | Former 3 channels workable | | |
| | | 171-190 | SD sound mode | | | |
| | | 191-210 | Built-in material manual mode | | Play the static pattern in storage | |
| | | 211-230 | Built-in material automatic mode | Former 3 channels workable | | |
| | | 231-255 | Built-in material sound mode | | | |
| 2 | Play list selection | 0-249 | Storage mode | SD mode | Built-in | |
| | | | 50 values=1 play storage list | 25 values=1 play list | manual | Auto, sound |
| | | 250-255 | cycle | cycle | | cycle |
| 3 | Graphic selection | 0-249 | Storage mode | SD mode | Built-in material mode | |
| | | | 10 values=1 play storage list | 3 values=1 play file | manual | Auto, sound |
| | | 250-255 | cycle | cycle | cycle | cycle |
| 4 | X axial movement | 0 | Don' t shift, default center position | | | |
| | | 1-127 | Manual horizontal shift | | | |
| | | 128-191 | Automatic right shift, shift speed is proportional to push rod value | | | |
| | | 192-255 | Automatic left shift, shift speed is proportional to push rod value | | | |
| 5 | Y axial movement | 0 | Don' t shift, default center position | | | |
| | | 1-127 | Manual vertical shift | | | |
| | | 128-191 | Automatic downward shift, shift speed is proportional to push rod value | | | |
| | | 192-255 | Automatic upward shift, shift speed is proportional to push rod value | | | |
| 6 | Zoom run | 0 | No zoom, default 100% size | | | |
| | | 1-51 | Manually adjust the size, the bigger value, the bigger pattern | | | |

| | | | | |
|----|---|---------|--|---|
| | | 52-119 | From small to large, zoom speed is proportional to the push rod value | |
| | | 120-187 | From large to small, zoom speed is proportional to push rod value | |
| | | 188-255 | Zoom in and out alternately, zoom speed is proportional to push rod value | |
| 7 | Rotate around the Y-axis | 0 | No rotation | Rotate the Y-axis that is change on X-axis |
| | | 0-127 | Manual rotation | |
| | | 128-255 | Auto rotation, the bigger value, the faster rotation. | |
| 8 | Rotate around the X-axis | 0 | No rotation | |
| | | 0-127 | Manual rotation | |
| | | 128-255 | Auto rotation, the bigger value, the faster rotation. | |
| 9 | Rotate around the Z-axis (Center point) | 0 | No rotation | |
| | | 1-127 | Manual rotation, one loop clockwise | |
| | | 128-191 | Automatic clockwise rotation, the bigger vale, the faster rotation. | |
| | | 192-255 | Automatic counterclockwise rotation, the bigger vale, the faster rotation. | |
| 10 | Gradual draw | 0 | No draw | Gradual draw is only effective when playing the internal material |
| | | 1-127 | automatic gradual draw 1 | |
| | | 128-255 | automatic gradual draw 2 | |
| 11 | wave | 0-9 | No wave | |
| | | 10-199 | The speed of wave is adjustable | |
| | | 200-255 | The amplitude of wave is adjustable | |
| 12 | Point-line mode | 0-63 | Display normally | |
| | | 64-127 | Display bright piont(add the point on the line) | The smaller value, the more dots |
| | | 128-191 | Display segments | The smaller value, the more segments |
| | | 192-255 | Display point | |
| 13 | Edit color/RGB | 0-1 | Fixed color | |
| | | 2-15 | 7 segments of pure color | one color every 2 values |
| | | 16-19 | 7 segments of pure color change | |
| | | 20-33 | 7 segments of RGB | Switch a segment every 2 values |
| | | 34-37 | 7 segment RGB change | |

| | | | | |
|----|--------------------------|---------|---------------------------|--|
| | | 38-154 | Adjust color segment | |
| | | 155-255 | Adjust color segment flow | |
| 14 | Red brightness control | 0-255 | 0-100% brightness output | 0 indicate 100%, the bigger value, the lower brightness. |
| 15 | Green brightness control | 0-255 | 0-100% brightness output | 0 indicate 100%, the bigger value, the lower brightness. |
| 16 | Blue brightness control | 0-255 | 0-100% brightness output | 0 indicate 100%, the bigger value, the lower brightness. |

18 channel mode

| Channel | function | value | control | | |
|---------|----------------|---------|---|---|--|
| CH1 | Dimmer | 0-63 | All off | | |
| | | 64-127 | on | Default speed, will affect auto and animation speed | |
| | | 128-255 | | Speed from slow to fast, will affect auto and animation speed, one speed every 5 value. | |
| CH2 | Model | 0-49 | auto | 1 group every 10 value | group: refer to the menu on the screen |
| | | 50-99 | sound | 1 group every 10 value | show |
| | | 100-200 | animation | 1 group every 10 value | Set the groups from the |
| | | 200-255 | graphic | 1 group every 10 value | ILDA software in PC |
| CH3 | gobo /frame | 0-249 | Auto, sound | animation | gobo |
| | Pattern. frame | | 1 auto effect every 3 value | 1 animation every 3 value | 1 static gobo every 3 value |
| | | | cyclic selected group (choose it on the second channel) | | |
| CH4 | strobe | 0-10 | No strobe | | |
| | | 11-199 | Auto strobe, speed from slow to fast | | |
| | | 200-249 | Sound-activated strobe | | |
| | | 250-255 | | | |
| CH5 | color | 0-1 | Fixed color | | |
| | | 2-15 | 7 segments pure color | 1 color every 2 values | |
| | | 16-19 | 7 segments pure color change | | |

| | | | | |
|------|------------------------|---------|---|---------------------------------|
| | | 20-33 | 7 segments RGB | Switch a segment every 2 values |
| | | 34-37 | 7 segments RGB change | |
| | | 38-154 | Adjust segment | |
| | | 155-255 | Adjust segment flow | Fix the flow speed |
| CH6 | Dispaly | 0-63 | Normal display | |
| | | 64-127 | Bright point display | |
| | | 128-191 | Segment display | |
| | | 192-255 | Point display | |
| CH7 | X move | 0-125 | Manually adjust position | |
| | | 126-185 | Automatic left and right cyclic movement | |
| | | 186-225 | Automatic jump left and right cyclic movement | |
| | | 226-245 | Automatic irregular jumping | |
| | | 246-255 | sound activated irregular jumping | |
| CH8 | Y move | 0-125 | Manually adjust position | |
| | | 126-185 | Automatic up and down cyclic movement | |
| | | 186-225 | Automatic jump up and down cyclic movement | |
| | | 226-245 | Automatic irregular jumping | |
| | | 246-255 | sound activated irregular jumping | |
| CH9 | zoom | 0-10 | No zoom | |
| | | 11-87 | Manually adjust size | |
| | | 88-150 | Zoom in | |
| | | 151-200 | Zoom out | |
| | | 201-255 | Cyclic zoom in and out | |
| CH10 | Rotation around Y-axis | 0 | No rotation | |
| | | 1-128 | Manual adjustment | |
| | | 129-255 | Auto rotation | |
| CH11 | Rotation around X-axis | 0 | No rotation | |
| | | 1-128 | Manual rotation | |
| | | 129-255 | Auto rotation | |
| CH12 | Rotation around Z-axis | 0 | No rotation | |
| | | 1-128 | Manual adjustment | |
| | | 129-192 | Automatic clockwise rotation | |
| | | 193-255 | Automatic counterclock rotation | |
| CH13 | Gradual draw | 0-10 | No Gradual draw | |
| | | 10-74 | Manually adjust gradual draw | |
| | | 75-104 | auto gradual draw (increase) | |
| | | 105-144 | auto Gradually draw (decrease) | |
| | | 145-184 | auto cyclic gradual draw | |
| | | 185-224 | End to end cyclic gradual draw (increase) | |
| | | 225-255 | End to end cyclic gradual draw (decrease) | |
| CH14 | X wave | 0-9 | No wave | |
| | | 10-69 | small amplitude wave | |
| | | 70-129 | middle amplitude wave | |
| | | 130-189 | big amplitude wave | |
| | | 190-255 | max amplitude wave | |
| CH15 | Y wave | 0-9 | No wave | |

| | | | |
|------|------------------|---------|----------------------------------|
| | | 10-69 | small amplitude wave |
| | | 70-129 | middle amplitude wave |
| | | 130-189 | big amplitude wave |
| | | 190-255 | max amplitude wave |
| CH16 | Red modulation | 0-255 | Red from brightest to blackout |
| CH17 | Green modulation | 0-255 | green from brightest to blackout |
| CH18 | Blue modulation | 0-255 | blue from brightest to blackout |

25 channel mode

| channel | function | value | Control | | |
|---------|---------------|------------------------|---|---|--|
| CH1 | Dimmer | 0-10 | All off | 0-10 darkest, 255 standard brightness. Correspond to alpha channel in the color, you can regard it as transparency. | |
| | | 11-255 | brightness | | |
| CH2 | Mode | 0-4 | off | | group: refer to the show in the menu on screen |
| | | 5-49 | auto | 5-9: group 1 | |
| | | | | 10-19: group 2 | |
| | | | | 20-29: group 3 | |
| | | | | 30-39: group 4 | |
| | | | | 40-49: group 5 | |
| | | 50-99 | sound | 1 group every 10 value | |
| 100-200 | animation | 1 group every 10 value | Set the groups in the PC ILDA software | | |
| 200-255 | graphic | 1 group every 10 value | | | |
| CH3 | gobo /frame | 0-249 | Auto/sound | animation | graphic |
| | graphic/frame | | One auto effect every 3 value | One animation every 3 value | 1 static graphic every 3 values |
| | | | 250-255 | Cyclically selected group (select from channel 2) | |
| CH4 | Speed | 0-4 | Default speed | | |
| | | 5 | When speed is 0, graphic is static | | |
| | | 6-255 | 1 speed every 5 value, speed from slow to fast. | | |
| CH5 | In Color | 0-3 | Fixed color | | |
| | | 4-6 | pass | Overall color change | RGB, In Color and Out Color channel were pushed here, from Color Drawing channel to get overall color change |

| | | | | | | | | |
|-----|----------------|---------|------------------------------|---------------------------------|---|-------------------------------------|---------------------|--|
| | | 7-9 | Channel 7 (Color Drawing) | | Pure color, In Color and Out Color channel were pushed here, from Color Drawing channel to get overall color change | | | |
| | | 10-127 | Color change | Fade in and out of color change | White segment | Check the file | | |
| | | 128-191 | | | Pure color | ANG | 64 color | |
| | | | | | | TTL | 7 segment color | |
| | | 192-255 | | | RGB | ANG | 64 color | |
| | | | | | | TTL | 7 segment RGB color | |
| CH6 | Color Drawing | 0-63 | manual | | Fade in | Color depends on "In Color" channel | | |
| | Color transfer | 64-127 | | Fade out | Color depends on "Out Color" channel | | | |
| | | 128-159 | auto | Fade out | | | | |
| | | 160-191 | | Fade in | | | | |
| | | 192-223 | | Cyclic fade in and out | | | | |
| | | 224-255 | | Fade in and out connect | | | | |
| CH7 | Out Color | 0-3 | Fixed color | | | | | |
| | | 4-6 | pass | Overall color change | RGB, In Color and Out Color channel were pushed here, from Color Drawing channel to get overall color change | | | |
| | | 7-9 | Channel 7 (Color Drawing) | | Pure color, In Color and Out Color channel were pushed here, from Color Drawing channel to get overall color change | | | |
| | | 10-127 | Color change | Fade in and out of color change | White segment | Check the file | | |
| | | 128-191 | | | Pure color | ANG | 64 color | |
| | | | | | | TTL | 7 segment color | |
| | | 192-255 | | | RGB | ANG | 64 color | |
| | | | | | | TTL | 7 segment RGB color | |
| CH8 | Move X | 0 | X manual move | | Default middle position | Same position as channel 127 | | |

| | | | | | |
|------|-----------------|---------|---------------|---------------------------|---|
| | | 1-255 | | location | 127/middle, The ends of the graph are inverted |
| CH9 | auto Move X | 0-84 | X auto move | Forward direction | The bigger value, the faster speed (Up or down depends on the direction setting of the system) |
| | | 85-169 | | Reverse | |
| | | 170-255 | | Up and down cyclic | |
| CH10 | Move Y | 0 | Y manual move | Default middle position | Same position as channel 127 |
| | | 1-255 | | location | 127/middle, The ends of the graph are inverted |
| CH11 | auto Move Y | 0-84 | Y auto move | Forward direction | The bigger value, the faster speed (Up or down depends on the direction setting of the system) |
| | | 85-169 | | Reverse | |
| | | 170-255 | | Up and down cyclic | |
| CH12 | scale | 0-127 | manual | size | Default 0/max |
| | | 128-169 | auto | Zoom in | The bigger value, the faster speed |
| | | 170-211 | | Zoom out | |
| | | 212-255 | | Zoom cyclically | |
| CH13 | center rotation | 0-127 | manual | rotate | |
| | | 128-191 | auto | Counterclockwise rotation | The bigger value, the faster speed |
| | | 192-255 | | Clockwise rotation | |
| CH14 | Rotate X | 0-127 | manual | X rotation | |
| | | 128-191 | auto | X rotation | The bigger value, the faster speed |
| | | 192-255 | | X deformation rotation | |
| CH15 | Rotate Y | 0-127 | manual | rotation | |
| | | 128-191 | auto | Y rotation | The bigger value, the faster speed |
| | | 192-255 | | Y deformation rotation | |
| CH16 | Wave X | 0-127 | manual | X wave | Wave period and amplitude are determined by |
| | | 128-191 | auto | X forward wave | setting from Wave ref channel |
| | | 192-255 | | X Reverse wave | |
| CH17 | Wave Y | 0-127 | manual | Y wave | Wave period and amplitude are |

| | | | | | |
|------|---------------------------------------|-----------------------------------|----------------------|---|--|
| | | | | | determined by |
| | | 128-191 | auto | Y forward wave | setting from Wave ref channel |
| | | 192-255 | | Y Reverse wave | |
| CH18 | Wave ref | 0-63 | Periodic parameters | 1 period | The bigger value, the smaller amplitude. Automatic wave in small amplitude can get water ripple effect |
| | Wave parameters: period and amplitude | 64-127 | | 2 period | Same as above |
| | | 128-191 | | 3 period | |
| | | 192-255 | | 4 period | |
| CH19 | Show Point | 0-9 | none | | |
| | | 10-129 | line scanning | 30 — 4 points | The smaller value, the more points, the less brightness |
| | | | | | The bigger value, the less points, the more brightness |
| | | 130-191 | Point scanning | Dispaly 16 points , equal division | The bigger value, the more brightness |
| | 192-255 | Dispaly 8 points , equal division | | | |
| CH20 | Color | 0-2 | bright | | |
| | | 3-255 | strobe | The more close to value 255, the slower strobe, a strobe speed every 3 values | |
| CH21 | Array | 0 | array | | X or Y movement may be effected (channels 9-12), depending on array position, meanwhile the multi-graph array will accelerate the original movement speed. |
| | | 1-63 | | 1 picture 8 position | |
| | | 64-127 | | 2 picture 4 position | |
| | | 128-175 | | 3 picture 3 position | |
| | | 176-255 | 4 picture 2 position | | |

| | | | | | |
|------|--------|---------|------------------------------------|------------------------------------|---|
| CH22 | Border | 0-63 | | Real-time action, no interpolation | Pliancy function, applied to all manual functions, can make the movement smoother and cleaner |
| | 出界 | 64-127 | Out border fold | Smooth movement and interpolation | Interpolation mainly solves the gap problem when the slow motion occurs. |
| | | 128-191 | | Real-time action, no interpolation | |
| | | 192-255 | Out border blackout | Smooth movement and interpolation | |
| CH23 | red | 0-255 | Red from brightest to extinguish | | |
| CH24 | green | 0-255 | green from brightest to extinguish | | |
| CH25 | blue | 0-255 | blue from brightest to extinguish | | |

27 channel mode

| channel | function | value | function | | | | |
|---------|-------------|---------|---|-------------------------------|-------------------------------|---------------------------|--------------------|
| CH1 | Dimmer | 0-10 | off | | | | |
| | | 11-255 | brightness | | | | |
| CH2 | Model | 0-63 | 64-127 | 128-191 | 192-255 | inclusion relation | inclusion relation |
| | | off | Auto effect (the first 6 channels work) | SD | storage | | |
| CH3 | gobo /frame | 0-249 | Interval value: 2 | Interval value: 2 | Interval value: 2 | one | one |
| | | 250-255 | Cycle ch-4 Specify the effect | Cycle ch-4 Specify the effect | Cycle ch-4 Specify the effect | File/scenes included many | group/show |
| | | | | | Exception Ch-5:0-19 not cycle | gobo/frame | Include many |
| CH4 | file/ scene | 0-249 | Interval value: 10 | Interval | Interval value: 10 | | File/scenes |

| | | | | | | | |
|-----|----------------|---------|--------------------------|--|---|--------------------------------------|-----------------|
| | | | | value: 10 | | | |
| | File/scenes | 250-255 | Cycle all | Cycle ch-5 Specify the effect | Cycle ch-5 Specify the effect | | |
| | | | | | | Exception Ch-5:0-19 not cycle | |
| CH5 | Group/show | 0-249 | No-effect | Interval value: 20 | Interval value: 20 | | |
| | Group/show | 250-255 | | Cycle all | Cycle all | | |
| CH6 | Control | 0-4 | auto | default speed | | | |
| | | 5-127 | | Every 5 is a speed, speed from slow to fast | | | |
| | | 128-132 | sound | Default sensitivity | | | |
| | | 133-255 | | Every 5 is a sensitivity, sensitivity from low to high | | | |
| CH7 | In Color | 0-3 | Fixed color | | | | |
| | | 4-6 | pass | overall color change | RGB, In Color and Out Color channel were pushed here, from Color Drawing channel to get overall color change | | |
| | | 7-9 | 7channel (Color Drawing) | | Pure color, In Color and Out Color channel were pushed here, from Color Drawing channel to get overall color change | | |
| | | 10-127 | change color | Fade in and out | White segment | Check the file | |
| | | 128-191 | | | Pure color | ANG | 64 color |
| | | | | | | TTL | 7 segment color |
| | | 192-255 | | | RGB | ANG | 64 color |
| | | | | TTL | | 7 segment RGB color | |
| CH8 | Color Drawing | 0-63 | manual | Fade in | | Color depends on "In Color" channel | |
| | Color transfer | 64-127 | | Fade out | | Color depends on "Out Color" channel | |
| | | 128-159 | auto | Fade out | | | |
| | | 160-191 | | Fade in | | | |
| | | 192-255 | | Cyclic Fade in and | | | |

| | | | | | | | |
|------|-------------|---------|--------------------------|------------------------------|---|--|---|
| | | 23 | | | out | | |
| | | 224-255 | | | Fade in and out connect | | |
| CH9 | Out Color | 0-3 | Fixed color | | | | |
| | | 4-6 | pass | Overall color change | RGB, In Color and Out Color channel were pushed here, from Color Drawing channel to get RGB change. | | |
| | | 7-9 | 7channel (Color Drawing) | | Pure color, In Color and Out Color channel were pushed here, from Color Drawing channel to get pure color change. | | |
| | | 10-127 | Change color | Fade in and out change color | White segment | Check the file | |
| | | 128-191 | | | Pure color | ANG | 64 color in table |
| | | | | | | TTL | Refer to TTL color table:7 segment pure color |
| | | 192-255 | | | RGB | ANG | 64 color in table |
| | | | | TTL | | Refer to TTL color table:7 segment RGB color | |
| CH10 | Move X | 0 | X manual movement | Default position | middle | Same as channel 127/ position | |
| | | 1-255 | | Location | | 127/ Middle, inverted at both ends | |
| CH11 | auto Move X | 0-84 | X automatic movement | Forward direction | | The bigger value, the faster speed (up or down depending on the direction set by the system) | |
| | | 85-169 | | reverse | | | |
| | | 170-255 | | Up and down cyclically | | | |
| CH12 | Move Y | 0 | Y manual movement | Default position | middle | Same as channel 127/ position | |
| | | 1-255 | | Location | | 127/ Middle, inverted at both ends | |
| CH13 | auto Move Y | 0-84 | Y automatic movement | Forward direction | | The bigger the value, the faster the speed (up or down depending on the direction set by the system) | |
| | | 85-169 | | reverse | | | |
| | | 170-255 | | Up and down cyclically | | | |

| | | | | | |
|------|---------------------------------------|-------------|-------------------|---------------------------|---|
| CH14 | scale | 0-127 | manual | size | Default 0/max |
| | zoom | 128-1 69 | auto | Zoom in | The bigger the value, the faster the speed |
| | | 170-2 11 | | Zoom out | |
| | | 212-2 55 | | Cyclic zoom | |
| CH15 | center rotate | 0-127 | manual | rotate | |
| | | 128-1 91 | auto | Counterclockwise rotation | |
| | | 192-2 55 | | Clockwise rotation | |
| CH16 | Rotate X | 0-127 | manual | X flip | The bigger the value, the faster the speed |
| | X rotation | 128-1 91 | auto | X flip | |
| | | 192-2 55 | | X Deformation flip | |
| CH17 | Rotate Y | 0-127 | manual | Y rotation | |
| | Y rotation | 128-1 91 | auto | Y rotation | |
| | | 192-2 55 | | Y Deformation flip | |
| CH18 | Wave X | 0-127 | manual | X wave | Wave period and amplitude are determined by Wave ref |
| | | 128-1 91 | auto | X forward wave | channel |
| | | 192-2 55 | | X reverse wave | |
| CH19 | Wave Y | 0-127 | manual | Y wave | Wave period and amplitude are determined by Wave ref |
| | | 128-1 91 | auto | Y forward wave | channel |
| | | 192-2 55 | | Y reverse wave | |
| CH20 | Wave ref | 0-63 | Period parameters | Period 1 | The bigger value, the smaller amplitude. Automatic wave in small amplitude can get water ripple effect. |
| | Wave parameters: period and amplitude | 64-127 | | Period 2 | |
| | | 128-1 91 | | Period 3 | |
| | | 192-2 55 | | Period 4 | |
| CH21 | Show Point | 0-9 | | | |
| | Display point | 10-129 | Line scanning | Display 30-4 | The smaller value, the more points, the less brightness |

| | | | | | |
|------|--------|-------------|------------------------------------|---|---|
| | | | | points | The bigger value, the less points, the more brightness |
| | | 130-1 91 | Point scanning | Display point 16, equal division | The bigger value, the more brightness |
| | | 192-2 55 | | Display point 8, equal division | |
| CH22 | Color | 0-2 | bright | | |
| | strobe | 3-255 | strobe | The more close to 255, the slower strobe, every 3 values is a strobe speed. | |
| CH23 | Array | 0 | array | | X or Y movement may be affected (9-12 channels), depending on the array position, meanwhile multigraph arrays speed up the original motion. |
| | array | 1-63 | | 1 graph 8 position | |
| | | 64-127 | | 2 graph 4 position | |
| | | 128-175 | | 3 graph 3 position | |
| | | 176-255 | | 4 graph 2 position | |
| CH24 | Border | 0-63 | Out border fold | Real-time action, no interpolation | Pliancy function, applied to all manual functions, can make the movement smoother and cleaner |
| | | 64-127 | | Smooth movement and interpolation | Interpolation mainly solves the gap problem when the slow motion occurs. |
| | | 128-191 | Out border blackout | Real-time action, no interpolation | |
| | | 192-255 | | Smooth movement and interpolation | |
| CH25 | red | 0-255 | Red from brightest to extinguish | | |
| CH26 | green | 0-255 | green from brightest to extinguish | | |
| CH27 | blue | 0-255 | blue from brightest to extinguish | | |

7. Safety instructions

For safety reasons, please follow the following instructions:

- Do not disassemble or alter the unit.
- Do not drop flammable liquids, water and metals into the machine.

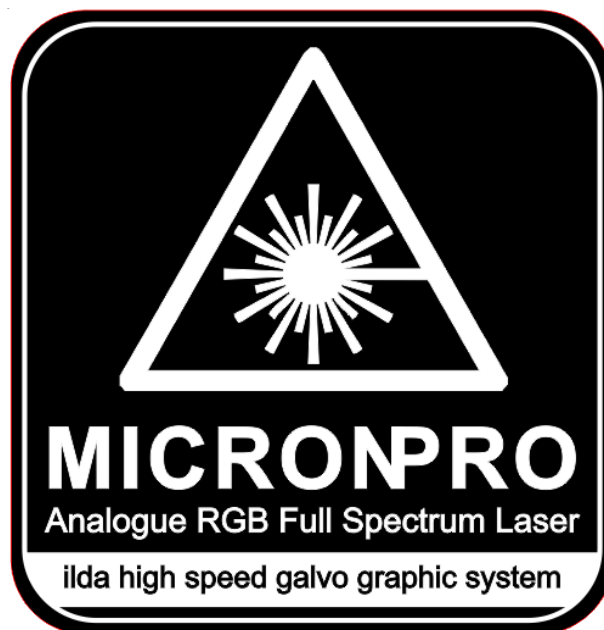
Avoid using the unit in the following situations:

- The relative humidity is too high.
- oscillation or collision environment.

Note:

- if you encounter serious difficulties in use, please stop immediately, and inquire agents or manufacturers for inspection.
- Do not disassemble the unit, there are no internal repair parts.
- Please request inspection by qualified personnel.

WARRANTY VOID IF NOT RESPECTED ALL THE SAFETY AND TECHNICAL PROCEDURES
WARRANTY VOID ON OPENED ENCLOSURE



VISIT US OR CONTACT US FOR MORE INFORMATION OR TECHNICAL SUPPORT

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