



## FL-400 RGB SD QUICK START MANUAL

### Specification:

**Supply parameters:** 110/220V 50-60hz;

**Power consumption:** 20W

**Laser type:** Solid state

**Laser power:** 400mW (Zielony: 532nm – 60mW; Niebieski – 200mW; Czerwony – 150mW)

**DMX channels:** 13

**motors:** 15KPPS

**Control modes:** Auto; Sound; DMX

**Packaging dimensions:** 25.7\*15.5\*9cm

**Weight:** 1.8kg

### Functions of FL-400-RGB-SD

1. This laser reads only FAT32 formatted cards, please ensure your SD card is in FAT32 format.
2. This laser supports filenames to 8 characters maximum. Please use only letters and numbers, no special characters are allowed in folder or filenames.
3. The SD card can contain up to 100 folders with 255 files in each one. Do not store mixed data on SD card used in this device. It is necessary to update the PRG playlist files after adding new files.
4. PRG playlist files can be edited using notepad. The list has following shape:  
file\_name.ild, playback\_speed, number\_of\_repeats  
values are separated by coma ',' Each file should be positioned in new line.

*Example 'playlist1.prg' contains inside files 'animation1.ild, animation2.ild, animation3.ild' playback speed is set to 12, 20 and 18K and repeats, three, one, and four times.*

```
animation1.ild,12,3  
animation2.ild,20,1  
animation3.ild,18,4
```

5. Creating new folder, it is necessary to create .prg file with same name and add into it files to be played.

*Example, in folder Aurora, there is Aurora.prg file, after adding new files to this folder it is necessary to add them into the Aurora.prg file too.*

6. This laser supports ILDA files saved with filename extension of \*.ild

## 1. Menu function:

Button **FUNC** is menu button, **ENTER** approves selected function, buttons **UP** and **DOWN** change selection.

After powering up, laser enters recently used mode.

To change work mode press **FUNC**, the display shows current mode in first line, and parameters that can be adjusted in the second line.

**SD Audio** – Playback SD card contents in reaction to detected audio

**Prg Mode** – Playback selected .prg playlist

**ILDA Mode** – Playback of single selected .ild file

**Audio Mode** – Sound mode

**Auto Mode** – Automatic mode

**DMX Mode** – Setting of DMX address

**Slave Mode** – Slave mode

**Phasic Set** – Adjusting of displayed pattern position

**Speed set** – Setting of scanner speed

**Size set** – Setting of maximum displayed pattern size

## DMX chart

| Channel | Range   | Function                                       |
|---------|---------|------------------------------------------------|
| 1       | 000-049 | Auto mode                                      |
|         | 050-099 | Audio mode                                     |
|         | 100-149 | PRG mode                                       |
|         | 150-199 | ILDA mode                                      |
|         | 200-255 | Manual control                                 |
|         |         |                                                |
| 2       | 000-255 | Select folder/pattern (changes every 2 values) |
| 3       | 000-255 | Strobe / select PRG od ILD                     |
| 4       | 000-005 | Blackout                                       |
|         | 006-010 | Full color                                     |
|         | 011-019 | White                                          |
|         | 020-039 | Red                                            |
|         | 040-059 | Green                                          |
|         | 060-079 | Blue                                           |
|         | 080-099 | Yellow                                         |
|         | 100-119 | Magenta                                        |
|         | 120-139 | Cyan                                           |
|         | 140-159 | Multicolor 1                                   |
|         | 160-179 | Multicolor 2                                   |
|         | 180-199 | Multicolor 3                                   |
|         | 200-219 | Color change 1                                 |
|         | 220-255 | Color change 2                                 |
| 5       | 0       | X centered                                     |
|         | 001-125 | X adjustment                                   |
|         | 126-155 | X flip 1                                       |
|         | 156-185 | X flip 2                                       |
|         | 186-225 | X flip 3                                       |
|         | 226-245 | X random                                       |
|         | 246-255 | X react to sound                               |
|         |         |                                                |

|    |         |                              |
|----|---------|------------------------------|
| 6  | 0       | Y centered                   |
|    | 001-125 | Y adjustment                 |
|    | 126-155 | Y flip 1                     |
|    | 156-185 | Y flip 2                     |
|    | 186-225 | Y flip 3                     |
|    | 226-245 | Y random                     |
|    | 246-255 | Y react to sound             |
|    |         |                              |
| 7  | 000-010 | no function                  |
|    | 011-087 | Zoom minimum>maximum         |
|    | 088-150 | Zoom out                     |
|    | 151-200 | Zoom in                      |
|    | 201-255 | Zoom in/out                  |
| 8  | 000-128 | X scale                      |
|    | 129-255 | X scale flip                 |
| 9  | 000-128 | Y scale                      |
|    | 129-255 | Y scale flip                 |
| 10 | 000-128 | Z rotation                   |
|    | 129-192 | Z rotation left              |
|    | 193-255 | Z rotation right             |
| 11 | 000-010 | no effect                    |
|    | 011-074 | Draw effect adjustment       |
|    | 075-104 | Draw effect forward          |
|    | 105-144 | Draw effect backward         |
|    | 145-184 | Draw effect forward/backward |
|    | 185-224 | Draw effect cycle+           |
|    | 225-255 | Draw effect cycle -          |
| 12 | 000-009 | X wave off                   |
|    | 010-069 | X wave 1                     |
|    | 070-129 | X wave 2                     |
|    | 130-189 | X wave 3                     |
|    | 190-255 | X wave 4                     |
|    |         |                              |
| 13 | 000-009 | Y wave off                   |
|    | 010-069 | Y wave 1                     |
|    | 070-129 | Y wave 2                     |
|    | 130-189 | Y wave 3                     |
|    | 190-255 | Y wave 4                     |
|    |         |                              |