



**Set Up**

1. Unpack your new Pyro Black Widow Laser and inventory the following: One Black Widow Laser. One power cable. One Manual.
2. Mount and aim the Black Widow so the laser beams will not shine on any people. It is important to aim the laser above the audience or performers where they cannot be hit by a beam.

**Automatic Operation**

**Sound Active.** Set all dipswitches to the off position.

⇒ Your new laser will now cycle through the different patterns and change along with the music.

**Auto.** Set dipswitch 1 to on.

⇒ Your new laser will now cycle through the different patterns at it's own rate

**Animation.** Set dipswitches 1 and 2 to on.

⇒ Your new laser will now play the pre-programmed animations.

**Dip Switch Chart**

X=off 1=on

| 1                        | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |              |
|--------------------------|---|---|---|---|---|---|---|---|----|--------------|
| x                        | x | x | x | x | x | x | x | x | x  | Sound Active |
| 1                        | x | x | x | x | x | x | x | x | x  | Auto         |
| 1                        | 1 | x | x | x | x | x | x | x | x  | Animation    |
| x                        | x | 1 | x | x | x | x | x | x | x  | Slave Mode   |
| (DMX Address)            |   |   |   |   |   |   |   |   | 1  | DMX Mode     |
| See DMX Addressing Below |   |   |   |   |   |   |   |   |    |              |

**PC Operation**

The Black Widow is capable of being controlled with ILDA software. ILDA stands for International Laser Display Association who set standards for interfacing lasers with computers. The Black Widow is equipped with a standard DB25 interface.

Please follow the instructions that came with your software. (Software is not included.)

## DMX Operation

Enable the DMX Mode by switching dipswitch 10 to on. Choose the DMX address with the remaining dipswitches. (See charts below.) Yes, there is math involved.

Switch #1 to on for channel 1. Switch #2 for channel 2. Switch #1 and #2 for channel 3. Switch #3 for 4. Switches #1, #2 and #3 for channel 7. (Use the chart below  $1+2+4=7$ )

### DMX Dipswitch Values

|   |   |   |   |    |    |    |     |     |    |
|---|---|---|---|----|----|----|-----|-----|----|
| 1 | 2 | 3 | 4 | 5  | 6  | 7  | 8   | 9   | 10 |
| 1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 258 | *  |

### Common DMX Channels for DMX Controllers

|             |   |     |     |     |       |     |       |       |         |     |       |       |         |
|-------------|---|-----|-----|-----|-------|-----|-------|-------|---------|-----|-------|-------|---------|
| Fixture #   | 1 |     | 2   | 3   | 4     | 5   | 6     | 7     | 8       | 9   | 10    | 11    | 12      |
| DMX ADDR    | 1 | 9   | 17  | 33  | 49    | 65  | 81    | 97    | 113     | 129 | 145   | 161   | 177     |
| Pin Setting | 1 | 1,4 | 1,5 | 1,6 | 1,5,6 | 1,7 | 1,5,7 | 1,6,7 | 1,5,6,7 | 1,8 | 1,5,8 | 1,6,8 | 1,5,6,8 |

If you want an easier way to set dipswitches go to the following link and use the dipswitch calculator. [http://www.thedmxwiki.com/definitions/dip\\_switches/](http://www.thedmxwiki.com/definitions/dip_switches/)

### DMX Control Chart

| Channel | Function            | Setting | Effect  |
|---------|---------------------|---------|---|
| 1       | Control Mode        | 0-49    | Sound active patterns                                 |
|         |                     | 50-99   | Automatic patterns                                    |
|         |                     | 100-149 | Animation   |
|         |                     | 150-255 | Manual  |
| 2       | Color Select        | 0       | Laser off   |
|         |                     | 1-255   | Scroll through color combinations                     |
| 3       | Pattern Select      | 0-255   | Scroll through preset patterns                        |
| 4       | Vertical Position   | 0-127   | Manual positioning                                    |
|         |                     | 128-191 | Automatic motion from up to down                      |
|         |                     | 192-255 | Automatic motion from down to up                      |
| 5       | Horizontal Position | 0-127   | Manual positioning                                    |
|         |                     | 128-191 | Automatic motion from right to left                   |
|         |                     | 192-255 | Automatic motion from left to right                   |
| 6       | Vertical flip       | 0-255   | Slow to fast  |
| 7       | Horizontal flip     | 0-255   | Slow to fast  |
| 8       | Rotation            | 0-127   | Manual positioning                                    |
|         |                     | 128-191 | Counter clockwise auto rotation                       |
|         |                     | 192-255 | Clockwise auto rotation                               |
| 9       | Zoom                | 0       | No zoom   |
|         |                     | 1-85    | Auto zoom from small to big                           |
|         |                     | 86-170  | Auto zoom from big to small                           |
|         |                     | 171-255 | Auto zoom cycle                                       |
| 10      | Pattern Size        | 0       | Normal  |
|         |                     | 1-255   | Small size pattern to large size pattern              |
| 11      | Spot to Line        | 0-255   | Change pattern from a smooth line to a series of dots |
| 12      | Twinkle             | 0-255   | Change twinkle  |