

## DMX Protocol

This section shows the DMX protocol for the following fixtures:

- Power Color 150
- Power Color FOI 150
- Power Scan 150
- Power Scan 150R
- Power Star 150

You use the DMX protocol information in this section to control the fixture with a DMX controller. You can also operate one or more fixtures in stand alone (local) mode, as discussed in "Using the fixtures in local mode" on page 7 of the user manual.

Table 1 below shows how DMX channels are assigned to each fixture. Adding the number of DMX channels to the base (starting) channel results in the DMX channel range each fixture uses. For example, a Power Color 150 fixture set to base channel c010 uses DMX channels 10 to 12 inclusive.

*Table 1. Fixture Functions by DMX Channel Number*

Model	Function by Channel Number					
	Base channel	Base + 1	Base + 2	Base + 3	Base + 4	Base + 5
Power Color FOI 150	Gobo	Color	not used	not used	not used	not used
Power Color 150	Gobo	Color	Shutter	not used	not used	not used
Power Star 150	Effects barrel	Gobo	Color	Shutter	not used	not used
Power Scan 150	Pan	Tilt	Gobo	Color	Shutter	not used
Power Scan 150R	Pan	Tilt	Gobo	Color	Shutter	Rotation

### **Special Functions**

This section lists DMX values for special functions available on all fixtures.

- |   |   |
|---|---|
| Home all motors                           | Value of 1 on all channels for 4 seconds        |
| Put fixtures in local mode                | Value of 255 on all channels                    |
| Revert from local mode to controller mode | Lower value of any DMX channel from 255 to <210 |

Each DMX channel supports values from 0 to 255 (or 0 to 100% on a slider). The following sections list these values, alphabetically by feature name.

### **Pan and Tilt Mirror**

The position and velocity for each motor is defined from a single 8-bit DMX channel using special prediction software (no velocity information is required). Pan movement is 164.7° (123.3° in narrow angle) and the tilt movement is 114° (55.8° in narrow angle). Pan resolution is 2928 steps and the tilt resolution is 2125 steps (both in wide angle mode).

### **Effects Barrel**

The barrel has variable velocity and is bi-directional, 6400 step resolution. This section lists DMX values for the effects barrel for the Power Star 150.

- |   |            |
|---|------------|
| Stop (no movement)                                    | 0, 127-129 |
| Clockwise (higher value means slower movement)        | 1-126      |
| Counter-clockwise (lower value means slower movement) | 130-255    |

## **Gobo**

This section lists DMX values for the gobo wheel on all fixtures.

<b>Gobo (Power Color 150)</b>		<b>Gobo (Power Star 150 and Power Scan 150)</b>	
Open	0-31	Open	0-31
50% aperture	32-47	Arrow	32-47
30% aperture	48-59	Catherine wheel	48-59
10% aperture	60-79	Meteor shower	60-79
Frost	80-95	Line	80-95
Color shifter (up)	96-111	Multi-line triangle	96-111
Color shifter (down)	112-127	Spiral	112-127
Line cube	128-143	Line cube	128-143
Triangle	144-159	Triangle	144-159
Flower	160-175	Flower	160-175
Planet	176-191	Planet	176-191
Propeller	192-107	Propeller	192-107
Cone	208-223	Cone	208-223
Custom position	224-239	Custom position	224-239
Slow auto-step	240-245	Slow auto-step	240-245
Medium auto-step	246-251	Medium auto-step	246-251
Fast auto-step	252-255	Fast auto-step	252-255
<b>Gobo (Power Scan 150R)</b>		<b>Gobo (Power Color FOI 150)</b>	
Soft edge	0-1	Shuttered	0-1
Arrow	2-28	Open	2-22
Circle	29-56	50% aperture	23-44
Curved line	57-84	30% aperture	45-66
Big fan	85-112	10% aperture	67-88
Circle dots	113-141	Color shifter (up)	89-111
Square	142-169	Color shifter (down)	112-129
Triangle	170-197	Variable-speed flash	130-254
Circle segments	198-225	Sound-activated strobe	255
Heart	226-252		
Double circle	253-255		

## **Color**

This section lists DMX values for the color wheel for all fixtures. Colors can be either split-colors or full colors (also called *snap-to* colors).

<b>Split-colors</b>		<b>Snap-to colors</b>	
Slow scan	0-155	Line up cross	156-166
Open/UV	8	Open	167-174
UV/Hot pink	19	Cyan	175-182
Hot pink/medium blue	34	Yellow	183-190
Medium blue/red	48	Lime green	191-198
Red/dark green	60	Orange	199-206
Dark green/Blue magenta	72	Blue magenta	207-214
Blue magenta/orange	85	Dark green	215-222
Orange/lime green	98	Red	223-230
Lime green/yellow	110	Medium blue	231-238
Yellow/cyan	124	Hot pink	239-246
Cyan/open	136	UV	247-252
		Slow auto-scroll	253
		Medium auto-scroll	254
		Fast auto-scroll	255

## **Gobo Rotation**

This section lists DMX values for gobo rotation for the Power Scan 150R.

Stopped	0, 108-147
Spinning	1-107, 148-255

## **Shutter**

This section lists DMX values for the shutter for all fixtures *except* the Power Color FOI 150, which uses the gobo wheel to shutter the light output.

Blackout	0
Wipe from blackout to fully open	0-127
Strobe speed, slow to fast	128-254
Locally sound-activated strobe	255