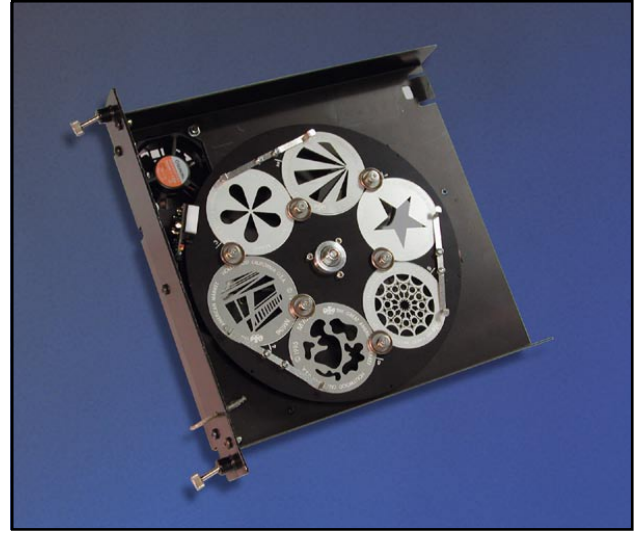
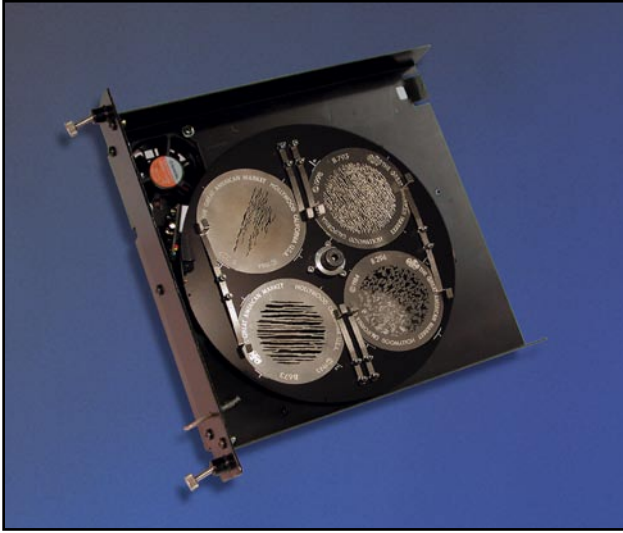
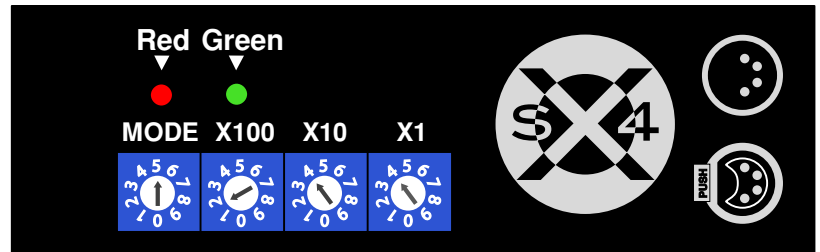


SX4® FOUR & SIX GOBO CHANGER OPERATING INSTRUCTIONS



Four channel setting switches are on the control box. The MODE switch is the left one and nearest the red LED power indicator. The right hand switch is the X1 DMX.

Address then X10 and X100



It is powered by 24 volt DC and controlled by DMX512, either from most color scroller power supplies or a standalone power supply. Once powered, the unit will show a red power LED to indicate the power is on. The unit is also fitted with a green LED which indicates the status of operation. After it is powered, the unit needs to initialize to find the home position of the gobos. This takes about 2 seconds during which time the green LED will flash. Once the home sensing is complete the flashing will stop. If the LED is not lit then DMX is not present. If the LED continues flashing, it means there has been a fault detecting the sensor and the unit operates but without correct index positioning.

MODE	DMX CHANNELS	FUNCTION
0	0	Standalone: select one gobo for focus
1	1	DMX gobo select by fader
2	2	DMX gobo select – speed & position
3	0	Standalone: speed,direction,timed
4	0	Standalone: 2 to 6 gobos, timed
5	0	Standalone: continuous rotate,set speed
6	1	DMX controlled rotate only
7	1	DMX control index / rotate one fader
8	2	DMX index/rotate on two faders
9	2	16 bit Indexing / 10,000 positions

MODE 0 OPERATION • MODE SWITCH = 0
Standalone single gobo select – for focusing

Set X1 Thumbwheel – This number is for selecting gobo.
 Each gobo is individually selected according to the following table.

X1	SIX-GOBO CHANGER	FOUR-GOBO CHANGER
SELECTION	GOBO DISPLAYED	GOBO DISPLAYED
0,1	1	1
2	2	2
3	3	3
4	4	4
5	5	4
6	6	4
7	6	4
8	6	4
9	6	4

MODE 1 OPERATION • MODE SWITCH = 1
DMX gobo selector – one channel operation

Set DMX address on SX4® – This number is the desk control (fader) channel.
 Gobo will change at the levels shown in the charts below. Moves at maximum speed and via the shortest route.

SIX-GOBO CHANGER		
CHANNEL LEVEL	DMX LEVEL	SIX
100%	255	Gobo 6
84%	215	
67%	214	Gobo 5
	172	
51%	171	Gobo 4
	129	
34%	128	Gobo 3
	86	
18%	85	Gobo 2
	43	
0%	42	Gobo 1
	0	

FOUR-GOBO CHANGER		
CHANNEL LEVEL	DMX LEVEL	FOUR
100%	255	Gobo 4
76%	192	
51%	191	Gobo 3
	128	
26%	127	Gobo 2
	64	
0%	63	Gobo 1
	0	



MODE 2 OPERATION • MODE SWITCH = 2

DMX gobo select with direction and speed control – Two channel operation

Set DMX address on SX4[®] – This number is the desk control (fader) channel.

Channel 1: Gobo will change at the levels shown in the charts as per Mode 1.

Channel 2: Sets speed and direction of change as per chart below.

FOUR & SIX GOBO CHANGER		
CHANNEL LEVEL	DMX LEVEL	DIRECTION
100%	255	Fast counterclockwise Variable speed levels
76%	192	Slow counterclockwise
51%	191 128	Fast clockwise Variable speed levels Slow clockwise
26%	127 64	Shortest route slow Variable speed levels
0%	63 0	Shortest route fast

MODE 3 OPERATION • MODE SWITCH = 3

Standalone operation displays all gobos in sequence

Use the X100 switch on the SX4[®] to set direction and speed as per chart.

FOUR & SIX GOBO CHANGER					
X100	DIRECTION	SPEED	X10	X1	TIME(SECS)
9	counterclockwise	Very slow	0	0	0.1
8	clockwise		0	1	0.1
7	counterclockwise	Slow	4	2	4.2
6	clockwise		5	0	5.0
5	counterclockwise	Medium	9	8	9.8
4	clockwise		9	9	9.9
3	counterclockwise	Fast			
2	clockwise				
1	counterclockwise	Very fast			
0					

Use the X10, X1 switch on the SX4[®] to set display time of each gobo.

Setting these switches from 1 to 99 varies the time in 0.1 second steps from 0.1 seconds to 9.9 seconds.



MODE 4 OPERATION • MODE SWITCH = 4

Standalone operation for less than maximum patterns – displays each gobo in sequence

X1 switch on SX4[®] will set the display time of each gobo from 1 to 10 seconds.
 Set on zero for 1 second.
 Set on 9 for 10 seconds.
 Moves between gobos at maximum speed.

X100 switch on SX4[®] selects the first position you use in the turret wheel.
 X10 switch on SX4[®] selects the last position you used in the turret wheel.

If you have three patterns, you put them in positions 1,2,3, then put the x100 switch to 1 and the x10 switch to 3 and the unit will auto-select those three positions only.

If X100 = 1 and x10 = 3 the selection order is 1,2,3,2,1, etc.
 If X100 = 2 and x10 = 5 the selection order is 2,3,4,5,4,3,2, etc.
 If X100 = 5 and x10 = 2 the selection order will be 5,6,1,2,1,6,5,6,1,2 etc.

MODE 5 OPERATION • MODE SWITCH = 5

Standalone operation for continuous rotation

X100 sets direction – select 1 for counterclockwise or 2 for clockwise rotation.
 X10, X1 sets speed of rotation – 00 is slowest and gradually increases in speed as the number is increased up to a maximum speed reached at number 63.

MODE 6 OPERATION • MODE SWITCH = 6

Rotation only DMX controlled

Applies to single pattern disc effects.

Select DMX control channel on SX4[®] switches X100, X10, X1.
 Selected channel fader operates speed and direction of rotation as per chart below.

CHANNEL LEVEL	DMX LEVEL	DIRECTION
100%	255	Fast counterclockwise
51%	129	Variable speed levels Slow counterclockwise
50%	128	STOPPED
49%	127	Slow clockwise
0%	0	Variable speed levels Fast clockwise



MODE 7 OPERATION • MODE SWITCH = 7
DMX single channel linear indexing and rotation control

Applies to single pattern disc effects

Select DMX control channel on SX4® switches X100,X10,X1

Control channel fader operates index/rotate functions as per chart below

APPLIES TO SINGLE PATTERN DISC EFFECTS		
CHANNEL LEVEL	DMX LEVEL	DIRECTION
100%	255	Slow clockwise Variable speed levels Continuous rotation
52%	130	Fast clockwise
51%	129	STOPPED
50%	128	360 degrees Indexing to position with shortest route maximum speed
0%	0	0 degrees (home)

MODE 8 OPERATION • MODE SWITCH = 8
DMX TWO channel linear indexing with variable speed rotation

Applies to single pattern disc effects and gobo discs

Select DMX control channel on SX4® switches - X100,X10,X1

Control channel fader has two functions

1. Operates as an indexing fader from zero to 99%
2. If set at 100% then it holds the disc into continuous rotation mode

SETTING CHOICES FOR CHANNEL 1		
CHANNEL LEVEL	DMX LEVEL	DIRECTION
100%	255	CONTINUOUS ROTATION MODE
99%	254	359 degrees Variable index positions
0%	0	0 degrees (home)



SECOND CHANNEL CONTROLS SPEED & DIRECTION OF DISC PER CHART WHEN 1ST CHANNEL IS AT 100% CONTINUOUS ROTATION MODE

CHANNEL LEVEL	DMX LEVEL	DIRECTION
100%	255	Fast counterclockwise Variable speed levels Continuous rotation
51%	129	Slow counterclockwise
50%	127,128	STOPPED
49%	126	Slow clockwise Variable speed levels Continuous rotation
0%	0	Fast clockwise

SECOND CHANNEL CONTROLS SPEED & DIRECTION OF DISC PER CHART WHEN 1ST CHANNEL IS SET FROM 0-9 INDEXING MODE

CHANNEL LEVEL	DMX LEVEL	DIRECTION
100%	255	Fast counterclockwise Variable speed levels Indexing
51%	128	Slow counterclockwise
50%	127	Slow clockwise Variable speed levels Continuous rotation
1%	1	Fast clockwise
0%	0	Shortest route full speed

MODE 9 OPERATION • MODES SWITCH = 9

DMX TWO channel highly accurate 16 bit linear indexing for all disc types

Select DMX control channel on SX4[®] switches -X100, X10,X1:

Use channel 1 for whole degree positions and channel 2 for fine alignment positions between the single degree settings of channel 1.

