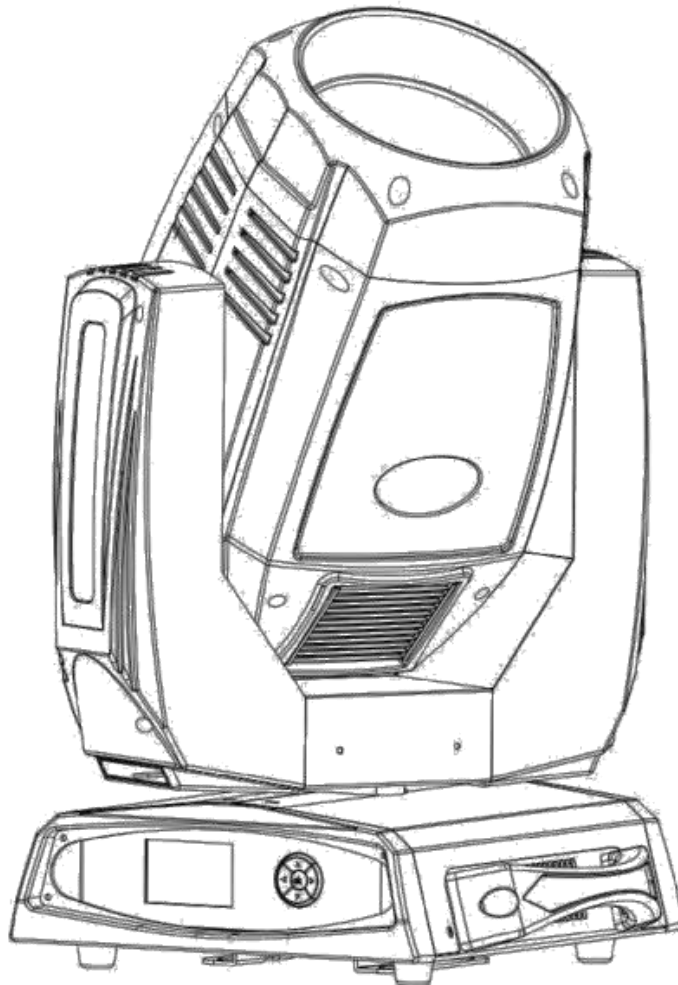# brighter

Extreme 440 Pro

This product manual contains important information about the safe installation and use of this projector. Please read and follow these instructions carefully and keep this manual in a safe place

User manual

Please read the instructions carefully before use

Contents

Thank you for your patronage!

We are confident that our excellent products and service can satisfy you.

For your own safety, please read this user manual carefully before installing the device.

In order to install, operate, and maintain the lighting safety correctly.

We suggest that the installation and operation should be done by the verified technician and follow the instruction strictly.

⚠	**CAUTION!** Keep this device away from rain and moisture!

	CAUTION! Unplug mains lead before opening the housing!

Every person involved with the installation, operation and maintenance of this device has to:

-be qualified

-follow carefully the instructions of this manual

INTRODUCTION:

Thank you for having chosen this professional moving head.

You will see you have acquired a powerful and versatile device.

Unpack the device. Inside the carton box you should find:

1. One power in cable
2. One 5-Pin DMX cable
3. Two bracket clamps
4. One English user manual

（Flight case, Clamps are optional, please contact your dealer）

Please check carefully that there is no damage caused by transportation. Should there be any questions, please consult your dealer and don't install this device.

GENERAL GUIDELINES

This device is a lighting effect for a professional use on stages, TV, in discotheques, theaters, etc.

This fixture is only allowed to be operated with the max alternating current which stated in the technical specifications in 6th page of this manual.

Lighting effects are not designed for permanent operation. Consistent operation breaks may ensure that the device will serve you for a long time without defects.

Do not shake the device. Avoid brute force when installing or operating the device. While choosing the installation-spot, please make sure that the device is not exposed

to extreme heat, moisture or dust. Please don't project the beam onto combustible substances. The minimum distance between light-output from the projector and the illuminated surface must be more than 0,5 meter.

If you use the quick lock cam in hanging up the fixture, please make sure the quick lock fasteners turned in the quick lock holes correctly.

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation.

Please use the original packaging if the device is to be transported.

For safety reasons, please be aware that all modifications on the device are forbidden. If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to short-circuit, burns, electric shock, crash, etc.

SAFETY INSTRUCTIONS

	CAUTION!
⚡	Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching wires!

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

1. In order to guarantee the product's life, please don't put it in the damp places or even the environment over 60degress.
2. Always mount this unit in safe and stable matter.

The qualified professionals are allowed to carry out the lamp installation, operation and maintenance, but they must guarantee to operate in strict accordance with the instructions referred to.

▲ **Important:**
   Damages caused by the disregard of this user manual are not subject to

   warranty. The dealer will not accept liability for any resulting defects or problems.

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising condensation could damage the device. Leave the device switched off until it has reached room temperatures.

This device falls under protection-classⅠ. Therefore it is essential that the device be earthed.
The electric connection must carry out by qualified person.

Make sure the power cord is never crimped or damaged by sharp edges. If this would be the case, replacement of the cable must be done by an authorized dealer.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.

During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually. Please don't project the beam onto combustible substances.

If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.

	CAUTION!
	Never touch the device during operation!
	The housing may heat up!

	CAUTION!
	Never look directly into the light source,
	As sensitive persons may suffer an epileptic shock.

Please be aware that damages caused by manual modifications to be the device are not subject to warranty. Keep away from children and non-professionals.

CLEANING AND MAINTENANCE

1. To reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.
2. Do not spill water or other liquids into or on to your unit.
3. During long periods of non-use, disconnect the unit's main power.

4. It should be installed in a well-ventilated place, at a distance of 50 centimeters or more with the walls. At the same time, please check if the fan and ventilation holes are unobstructed.

The following points have to be considered during the inspection

1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.

2) There must not be any deformations on the housing. Fixations and installations spots(ceiling, suspension, trussing).

3) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.

4) The electric power supply cables must not show any damage, material fatigue or sediments. Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

	CAUTION!
	Disconnect from mains before starting maintenance operation!

In order to make the lights in good condition and extend the life time, we suggest a regular cleaning to the lights.

1) Clean the inside and outside lens each week to avoid the weakness of the lights due to accumulation of dust.

2) Clean the fan each week.

3) A detailed electric check by approved electrical engineer each three month, make sure that the circuit contacts are in good condition, prevent the poor contact of circuit from overheating.

We recommend a frequent cleaning of the device. Please use a moist, lint-free cloth. Never use alcohol or solvents.

TECHNICAL PARAMETERS

Input: AC100~240V, 50/60Hz
Power Consumption: 700W
Lamp source: Osram 20R 440W
Zoom angle: 2.5°(Beam mode)
            4°- 50° electronic zoom(Spot mode)
CMY color mixing
Three color wheels with 14 color filters
2 CTO filters (3200 K and 2500 K) + 1 CTB filter
1 Wheel with 6 dichroic rotating gobos
1 Wheel with 18+1 fixed metal gobos
Animation disc
2 indexable rotating prisms (8-facet and linear 4-facet prism)
Frost filter for soft-edge projection
Electronic focusing
Auto focusing when zooming
Zooming and Auto-focusing at prism
0~100% dimmer
Speed adjustable strobe
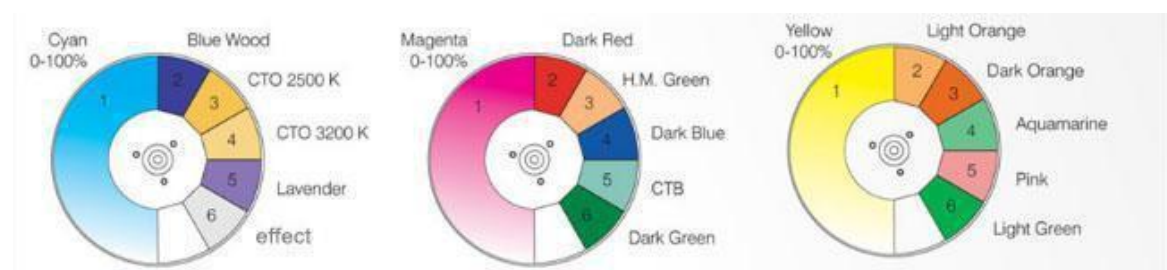Fast,smooth and quiet pan and tilt movements

Power will automatically decrease when light off or CMY
closes Modular design easier the repairing and maintenance

Self-charging battery, MENU edit available without main power
connection Art-Net in&out
Size: 448×386×637mm
Weight: 30kg

COLOR WHEEL:
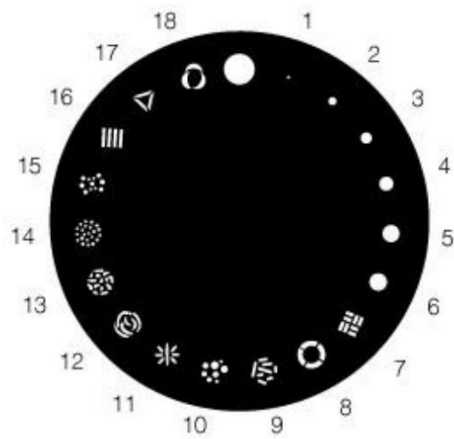
FIXED GOBO WHEEL: **AMIMATION DISC:**

ROTATING GOBO WHEEL:

25.9mm*25mm

Fixture Size
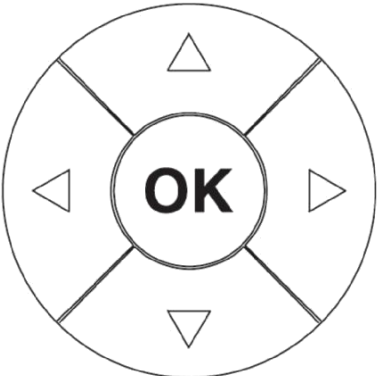
FUNCTIONS OF BUTTONS
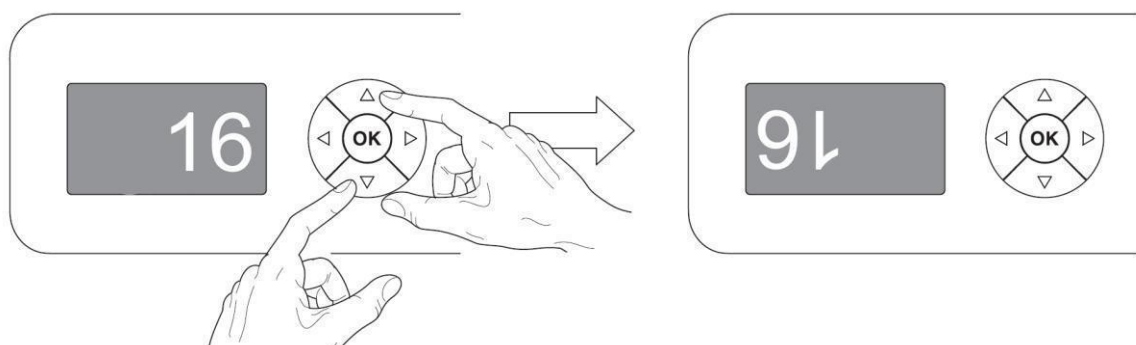
Reversal of the display

To activate this function, press UP and DOWN keys simultaneously while the display is in the rest mode.This status will be memorised and maintained even for the next time it will be switched on. To return to the initial state, repeat the operation all over again.

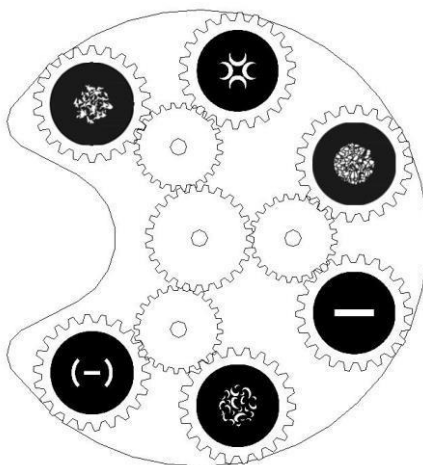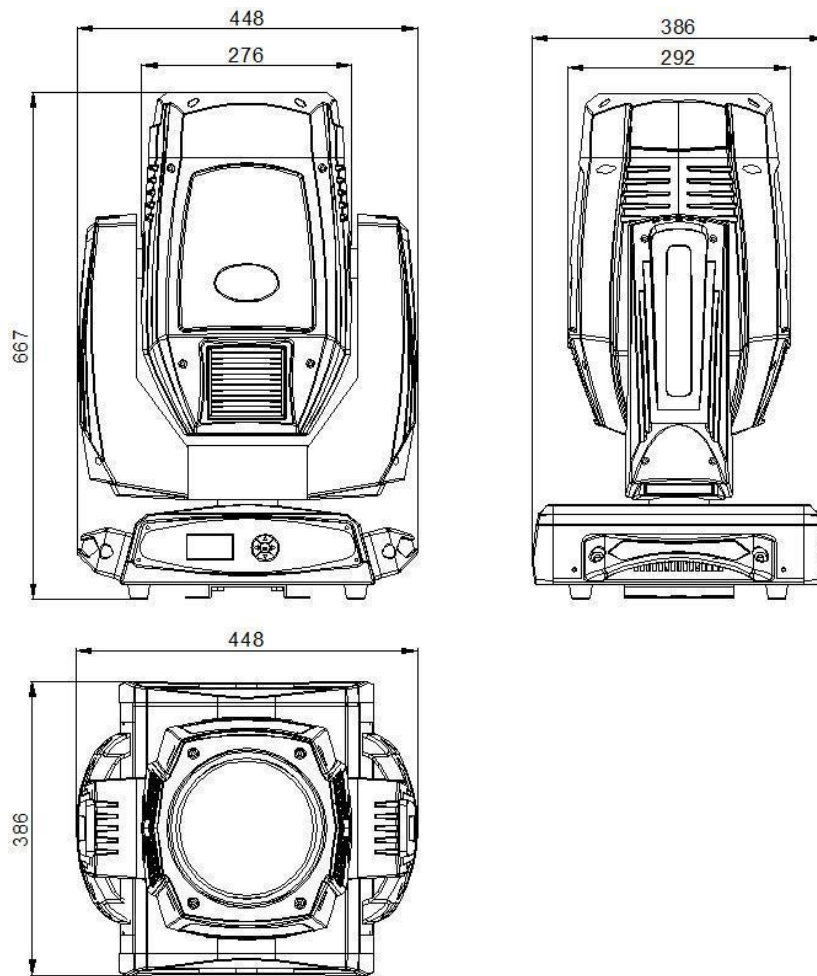|		
	(OK)	Confirms the displayed value, or activates the displayed function, or enters the successive menu.
	(▼) DOWN	Decreases the value displayed (with auto-repetitions) or passes to the next item in the menu.
	(▲) UP	Increases the value displayed (with auto-repetitions) or passes to the previous item in a menu.
	(▶) RIGHT	Return to the top level.
	(◀) LEFT	Commute from units, tens, hundreds, in the "Address", "Fixture ID" and "Calibration" menu.

USING THE MENU:

1) Press "OK" once – "Main Menu" appears on the display.

2) Use the UP and DOWN keys to select the menu to be used:

• Setup (Setup Menu): To set the setting options.

• Option (Option Menu): To set the operating options

• Informations (Informations Menu): To read the counters, software version
and other information.

• Manual Control (Manual control Menu): To trigger the test and manual control
functions.

• Test (Test Menu): To check the proper functionning of effects

• Advanced (Advanced Menu): Access to the "Advanced menu" is recommended
for a trained technical personnel.

"Advanced" password:988

3) Press "OK" to display the first item in the selected menu.

4) Use the UP and DOWN keys to select the MENU items.

MENU SETTING			
Main Menu	**Level 1**	**Level 2**	**Level 3**
Set Up	DMX Address	Setting Address*	
	Control Mode	DMX	
		Automatic	
		Mast	
	Channel Mode	Standard 30	
		Vector 34	
	Ethernet	Control Protocol	Disable
			Art-net on IP 2
			Art-net on IP 10
			Custom Set IP
		Repeat on DMX	Disabled
			Enabled on primary
		Universe	
		Set IP Address	
		Set IP Mask	
Option	Lamp Control	L Start ON	
		L Start OFF	
	Pan/Tilt	Invert Pan ON/OFF	
		Invert Tilt ON/OFF	
		Swap P/T ON/OFF	
	Display	Display Flip	
	Special Function	Pan/Tile speed	Fast
			Normal
		CMY Range	Full
			Limited
		CMY Shortcut	ON
			OFF
	Setting	Default Preset	Reset to Default
			NO
			YES
Information	Fixture hours	Fixture Used time:	
		Reset? N O	
		YES	
	Lamp hours	Lamp Used time	
		Reset? N O	
		YES	
	System Version	VXXX	
	Network params	IP address:	
		IP mask:	
		MAC address:	

Manual control	Lamp Switch	Lamp ON	
		Lamp OFF	
	Reset ALL	NO	
		YES	
Test	Pan/Tilt	PT testing	
	Colour	COL testing	
	Beam	Beam testing	
	Gobo	Gobo testing	
	Gobol	Gobol testing	
	ALL	ALL testing	
Advanced (need password 988)	Adjust Pan	+-XXX	
	Adjust Tilt	+-XXX	
	Adjust Colour1	+-XXX	
	Adjust Colour2	+-XXX	
	Adjust Colour3	+-XXX	
	Adjust Fix Gobo	+-XXX	
	Adjust Gobo Ch	+-XXX	
	Adjust Gobo Rot	+-XXX	
	Adjust Anim In	+-XXX	
	Adjust Anim Ro	+-XXX	
	Adjust Focus	+-XXX	
	Adjust Zoom LZ	+-XXX	
	Adjust Zoom LF	+-XXX	
	Adjust Frost	+-XXX	
	Adjust Prism1	+-XXX	
	Adjust Prism2	+-XXX	
	Adjust Prism Rot	+-XXX	
	Adjust Dimmer	+-XXX	

DMX CHANNELS

CHANNEL	ST 30 CHANNEL, EXTENDED 34 CHANNEL.
1	CYAN COLOUR WHEEL
2	MAGENTA COLOUR WHEEL
3	YELLOW COLOUR WHEEL
4	COLOUR 1
5	COLOUR 2
6	COLOUR 3
7	STOPPER / STROBE
8	DIMMER
9	DIMMER FINE
10	STATIC GOBO CHANGE
11	ANIMATION DISK INSERTION
12	ANIMATION DISK ROTATION
13	ROTATING GOBO SELECT
14	GOBO ROTATION
15	FINE GOBO ROTATION
16	PRISMS INSERTION
17	PRISMS ROTATION
18	FROST
19	ZOOM
20	FOCUS
21	FOCUS FINE
22	BEAM MODE
23	PAN
24	FINE PAN
25	TILT
26	FINE TILT
27	FUNCTION
28	RESET
29	LAMP CONTROL
30	MACRO EFFECTS
31	PAN-TILT TIME
32	COLOUR TIME
33	BEAM TIME
34	GOBO TIME

1		**CYAN COLOUR WHEEL**
	0-255	Linear Cyan movement
2		**MAGENTA COLOUR WHEEL**
	0-255	Linear Magenta movement
3		**YELLOW COLOUR WHEEL**
	0-255	Linear Yellow movement
4		**COLOUR 1**
	0	Empty position
	28	Empty + Soft Filter
	50	Soft Filter
	80	Soft Filter + Lavender
	100	Lavender
	129	Lavender + CTO 3200K
	150	CTO 3200K
	181	CTO 3200K + CTO 2500K
	204	CTO 2500K
	235	CTO 2500K + Blue Wood (UV Filter)
	255	Blue Wood (UV Filter)
5		**COLOUR 2**
	0	Empty position
	28	Empty + Dark Green
	50	Dark Green
	75	Dark Green + CTB
	100	CTB
	129	CTB + Dark Blue
	150	Dark Blue
	178	Dark Blue + H.M.Green
	200	H.M.Green
	235	H.M.Green + Dark Red
	255	Dark Red
6		**COLOUR 3**
	0	Empty position
	28	Empty + Light Green
	50	Light Green
	77	Light Green + Pink
	100	Pink
	129	Pink + Aquamarine
	150	Aquamarine
	181	Aquamarine + Dark Orange
	200	Dark Orange
	231	Dark Orange + Light Orange
	255	Light Orange

		STOPPER / STROBE
7	0-3	Light OFF
	4-103	Strobe at linearly variable frequency from low (1 flash/sec) to high (12 flashes/sec)
	104-107	Light ON
	108-207	Pulsation at linearly variable speed from slow (0.5 flash/sec) to fast (12 flashes/sec)
	208-212	Light ON
	213-225	Random Strobe at low frequency
	226-238	Random Strobe at medium frequency
	239-251	Random Strobe at high frequency
	252-255	Light ON
8		DIMMER
	0 - 255	Light output linearly increase from no-light to maximum brightness.
		Dimmer blades move from totally closed to totally open in
		0.02 seconds at maximum speed.
9		DIMMER FINE
	0 - 255	Fine Dimmer positioning
10		STATIC GOBO CHANGE
	0	Empty position
	4	Gobo 1
	8	Gobo 2
	12	Gobo 3
	16	Gobo 4
	19	Gobo 5
	23	Gobo 6
	27	Gobo 7
	31	Gobo 8
	35	Gobo 9
	38	Gobo 10
	42	Gobo 11
	46	Gobo 12
	50	Gobo 13
	54	Gobo 14
	57	Gobo 15
	61	Gobo 16
	65	Gobo 17
	69	Gobo 18
	72 - 113	Continuous gobo wheel CCW rotation at linearly variable speed from fast (60 rpm) to slow (5 rpm)
	114 - 117	Stop rotation
	118 - 159	Continuous gobo wheel CW rotation at linearly variable speed from slow (5 rpm) to fast (60 rpm)
	160 - 165	Gobo 1 shakes at variable speed from slow (24 bpm) to fast

		(600 bpm)
	166 - 170	Gobo 2 shakes at variable speed from slow (24 bpm) to fast (600 bpm)
	171 - 175	Gobo 3 shakes at variable speed from slow (24 bpm) to fast (600 bpm)
	176 - 181	Gobo 4 shakes …
	182 - 186	Gobo 5 shakes …
	187 - 191	Gobo 6 shakes …
	192 - 197	Gobo 7 shakes …
	198 - 202	Gobo 8 shakes …
	203 - 207	Gobo 9 shakes …
	208 - 214	Gobo 10 shakes …
	215 - 218	Gobo 11 shakes …
	219 - 223	Gobo 12 shakes …
	224 - 229	Gobo 13 shakes …
	230 - 234	Gobo 14 shakes …
	235 - 239	Gobo 15 shakes …
	240 - 245	Gobo 16 shakes …
	246 - 250	Gobo 17 shakes …
	251 - 255	Gobo 18 shakes …
11		**ANIMATION DISK INSERTION**
	0 - 255	Linear Animation Disk Insertion
12		**ANIMATION DISK ROTATION**
	0 - 124	Continuous animation disk CW rotation at linearly variable speed from fast (120 rpm) to slow (4.4 rph)
	125 - 130	Stop rotation
	131 - 255	Continuous animation disk CCW rotation at linearly variable speed from slow (4.4 rph) to fast (120 rpm)
13		**ROTATING GOBO SELECT**
	0 - 18	Empty position
	19 - 37	Gobo 1
	38 - 55	Gobo 2
	56 - 74	Gobo 3
	75 - 92	Gobo 4
	93 - 111	Gobo 5
	112 - 129	Gobo 6
	130 - 150	Gobo 1 shakes at variable speed from slow to fast
	151 - 171	Gobo 2 shakes at variable speed from slow to fast

	172 - 192	Gobo 3 shakes …
	193 - 213	Gobo 4 shakes …
	214 - 234	Gobo 5 shakes …
	235 - 255	Gobo 6 shakes …
	ROTATING GOBO effect disabled if BEAM MODE is working	
14		**GOBO ROTATION**
	0 - 21	Gobo indexing CW: 0°to 90°range
	21-42	Gobo indexing CW: 90°to 180°range
	42 - 63	Gobo indexing CW: 180°to 270°range
	63 - 84	Gobo indexing CW: 270°to 360°range
	84-105	84 - 105 Gobo indexing CW: 360°to 450°range
	105-127	105 - 127 Gobo indexing CW: 450°to 540°range
	128-190	Continuous gobo rotation CCW at linearly variable speed from fast (180 rpm) to slow (2.2 rph)
	191-192	Stop rotation
	193-255	Continuous gobo rotation CW at linearly variable speed from slow (2.2 rpm) to fast (180 rpm)
	ROTATING GOBO effect disabled if BEAM MODE is working	
15		**FINE GOBO ROTATION**
	0-255	Open
16		**PRISM INSERTION**
	0-10	Prism out
	11-132	Prism 1 into the light beam
	133-255	Prism 2 into the light beam
	PRISM effect disabled if BEAM MODE is working	
17		**PRISMS ROTATION**
	0-21	Prism indexing CW: 0°to 90°range
	21-42	Prism indexing CW: 90°to 180°range
	42 - 63	Prism indexing CW: 180°to 270°range
	63 - 84	Prism indexing CW: 270°to 360°range
	84-105	Prism indexing CW: 360°to 450°range
	105-127	Prism indexing CW: 450°to 540°range
	128-190	Continuous prism rotation CCW at linearly variable speed from fast (43 rpm) to slow (1.1 rph)
	191-192	Stop rotation
	193-255	Continuous prism rotation CW at linearly variable speed from slow (1.1 rpm) to fast (43 rpm)
	PRISM effect disabled if BEAM MODE is working	
18		**FROST**
	0-225	Frost moves linearly into the light beam Frost blades move from no-diffusion to maximum diffusion in 0.02 seconds at maximum speed.
19		**ZOOM**
	0-225	Zoom linearly moves from narrow to wide beam
20		**Frost**
	0-255	Focus moves linearly from far to near position. Focus lenses move from farthest to nearest position in 1.11 seconds at maximum speed.

21		**FOCUS FINE**
	0-255	Fine Focus positioning
22		**BEAM MODE**
	0-127	Zoom / Autofocus mode
	128-255	Beam Mode
	ROTATING and CHANGE GOBO /PRISM / ZOOM effects disabled if BEAM MODE is working	
23		**Pan**
		Pan movement/positioning CCW from 0°to 540°
	0-255	Fast Speed: 3.517 sec
		Normal Speed: 4.038 sec
24		**FINE PAN**
	0-255	Fine Pan positioning CCW
25		**TILT**
		Tilt movement/positioning from 0°to 244°
	0-255	Fast Speed: 2.180 sec
		Normal Speed: 2.274 sec
26	0-255	**FINE TILT**
		Fine Tilt positioning
27		**FUNCTION**
	0 - 11	Unused range
	12 - 24	Fast Pan / Tilt speed (default)
	25 - 37	Normal Pan / Tilt speed
	63 - 75	CMY Full Range (default)
	76 - 87	CMY Limited range
	88 - 255	Free
	The functions are activated/selected passing through the unused levels range and staying in the necessary range for 5 seconds.	
28		**RESET**
	0 - 25	Unused range
	26-76	Zoom Reset Zoom Reset sequence is activated passing through the unused levels range and staying in this range for 5 seconds
	77 - 127	Pan / Tilt Reset Pan/Tilt Reset sequence passing through the unused levels range and staying in this range for 5 seconds.
	128-255	Complete Reset All-effects Reset sequence passing through the unused levels range and staying in this range for 5 seconds.
29		**LAMP CONTROL**
	0 - 25	Unused range
	26-100	Lamp OFF Lamp switch-off passing through the unused levels range and

		staying in this range for 5 seconds.
	101-255	Lamp ON Lamp switch-on passing through the unused levels range and staying in this range for 5 seconds.
30		**MACRO EFFECTS**
	0 – 7	Macro OFF
	8 – 11	Standby
	12 – 15	Standby black
	16 – 45	Zoom IN Faded
	46 – 75	Zoom OUT Faded
	76 – 105	Zoom IN OUT
	106 – 135	Standby Black 1
	136 – 165	Zoom IN Faded Random
	166 – 195	Zoom OUT Faded Random
	196 – 225	Zoom IN OUT Random
	226 - 255	Standby Black 2
31		**PAN-TILT TIME**
		Pan - Fine Pan - Tilt - Fine Tilt
32		*COLOUR TIME*
		Cyan - Magenta –Yellow
33		**BEAM TIME**
		Dimmer - Frost - Prism –Focus - Zoom
34		**GOBO TIME**
		Static Gobo –Rotating Gobo

IMPORTANT
To prevent accidental breakage of the effects, which could collide with each others during transport, before switching the projector OFF, check that all the fixture Channels have been excluded (DMX level = 0 bit.).
Remember to ''Switch-Off''the bulb, before to ''Switch-Off''the fixture.

VECTOR MORE TIME TABLE

BIT	Seconds	BIT	Seconds	BIT	Seconds	BIT	Seconds	BIT	Seconds	BIT	Seconds
0	Full	43	8.6	86	24	129	41	172	58	216	170
1	0.2	44	8.8	87		130		173		217	
2	0.4	45	9	88	25	131		174		218	180
3	0.6	46	9.2	89		132	42	175	59	219	
4	0.8	47	9.4	90		133		176		220	
5	1	48	9.6	91	26	134	43	177	60	221	190
6	1.2	49	9.8	92		135		178		222	
7	1.4	50	10	93	27	136		179		223	
8	1.6	51	10.2	94		137	44	180	65	224	200
9	1.8	52	10.4	95		138		181		225	
10	2	53	10.6	96	28	139	45	182		226	210
11	2.2	54	11	97		140		183	70	227	
12	2.4	55		98		141		184		228	
13	2.6	56	12	99	29	142	46	185	75	229	220
14	2.8	57		100		143		186		230	
15	3	58	13	101	30	144	47	187		231	230
16	3.2	59		102		145		188	80	232	
17	3.4	60		103		146		189		233	
18	3.6	61	14	104	31	147	48	190	85	234	240
19	3.8	62		105		148		191		235	
20	4	63	15	106	32	149	49	192		236	250
21	4.2	64		107		150		193	90	237	
22	4.4	65		108		151		194		238	
23	4.6	66	16	109	33	152	50	195	95	239	260
24	4.8	67		110		153		196		240	
25	5	68	17	111	34	154	51	197		241	270
26	5.2	69		112		155		198	100	242	
27	5.4	70		113		156		199		243	
28	5.6	71	18	114	35	157	52	200	110	244	280
29	5.8	72		115		158		201		245	
30	6	73	19	116	36	159	53	202		246	290
31	6.2	74		117		160		203	120	247	
32	6.4	75		118		161		204		248	
33	6.6	76	20	119	37	162	54	205		249	300
34	6.8	77		120		163		206	130	250	
35	7	78	21	121	38	164	55	207		251	310
36	7.2	79		122		165		208	140	252	
37	7.4	80		123		166		209		253	
38	7.6	81	22	124	39	167	56	210		254	Follow cue Data
39	7.8	82		125		168		211	150	255	
40	8	83		126		169		212			
41	8.2	84	23	127	40	170	57	213	160		
42	8.4	85		128		171		214			
								215			

REMARK

The product has perfect performance and integrity packaging. All users should be strictly comply with the warning and operating instructions as stated. Or we aren't in charge of any result by misusing.

Any damage resulting by misuse is not within the Company's warranty.

Any fault or problem caused by neglecting the manual is also not in the charge of dealers. Errors and omissions for every information given in this manual excepted. All information is subject to change without prior notice.