brighter

Smart 1000

Spot-Beam-Wash

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

TABLE OF CONTENTS

STATEMENT

The product has full capability and intact packing when it leaves factory. All the users should comply with provided warnings and manual. Any damages caused by misuse are not included in our guarantee. We cannot be responsible for any malfunctions & problems owing to ignoring the manual.

1. Safety Instructions

- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Unpack and check carefully there is no transportation damage before using the unit.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- The unit is for indoor use only. Use only in a dry location.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Disconnect main power before replacement or servicing.
- Make sure there are no flammable materials close to the unit while operating as it is fire hazard.
- Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- Maximum ambient temperature is Ta: 40℃. DO NOT operate it where the temperature is higher than this Unit surface temperature may reach up to 85℃.
- DO NOT touch the housing bare-hands during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- In case of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance centre. Always use the same type spare parts.
- DO NOT touch any wire during operation as high voltage might be causing electric shock.

Warning:

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- DO NOT open the unit within five minutes after switching off.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

Caution:

There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs by yourself. If your unit requires service, please contact your nearest dealer.

Installation:

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you

are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at the safe place where it is not available for other people.

2. Unpacking

Please carefully unpack it when you receive the fixture and check whether it is damaged during the transportation. And please check whether the following items are included inside the box:

1 x User manual
2 x bracket
1 x DMX cable
1 x power wire
1 x warranty card

3. Features & Specifications

- Lamp: 280W (Colour temperature: 8000K)
- Channel mode: 16 / 24 DMX512 Channel
- Pan scan：540°(16bit) Electric correction
- Tilt scan：270° (16bit) Electric correction
- Amazing dot matrix, four tact switch, 180° turning show
- Colour wheel: one colour wheel, 13 kinds of colour chips in one colour wheel
- Static Gobo: 10 gobos
- Rotation Gobo:9 gobos
- Effect Wheel: one Rotation eight prism one Rotation six prism effect move , frost
- 0-100% mechanical dimming, mechanical dimming and free dimming available.
- strobe macro control available.
- Lens optical system mechanical focus, beam angle 3.8°-45°
- Over heat protection
- Power Input: 100-240V，50/60Hz
- Power Dissipation: 420W
- IP level: IP20zgd
- Magnetic ballast and AC/Dc power supply
- Packing Size: 523x337x570mm
- Net weight：20 KG

5. Operating Instructions

- The moving head is for spot effect for on-site decoration purpose.
- Don't turn on the fixture if it's been through severe temperature difference like after transportation because it might damage the light due to the environment changes. So make sure to operate the fixture until it is in normal temperature.
- This light should be keep away from strong shaking during any transportation or movement.
- Don't pull up the light by only the head, or it might cause damages to the mechanical parts.
- Don't expose the fixture in overheat, moisture or environment with too much dust when installing it. And don't lay any power cables on the floor. Or it might cause electronics shock to the people.
- Make sure the installation place is in good safety condition before installing the fixture.
- Make sure to put the safety chain and check whether the screws are screwed properly when installing the fixture.
- Make sure the lens are in good condition. It's recommended to replace the units if there are any damages or severe scratch.
- Make sure the fixture is operated by qualified personnel who know the fixture before using.
- Keep the original packages if any second shipments is needed.
- Don't try to change the fixtures without any instruction by the manufacturer or the appointed repairing agencies.
- It is not in warranty range if there are any malfunctions from not following the user manual to operate or any illegal operation, like shock short circuit, electronic shock, lamp broke, etc.

6. Installation

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at the safe place where it is not available for other people.

Rigging (Optional)

This equipment can be positioned and fixed by clamp in every direction of the stage. Locking system makes it easy to fasten to the bracket.

Attention! Two clamps are needed to fix the equipment. Every clamp is locked by fastener of 1/4 kind. Fastener can only be locked clockwise.

Attention! Fasten a safety string to the additional hole of the side aluminium piece. The secondary accessory cannot hang on the delivery handle. Nip the equipment on bracket.

- Check if rigging clamp (not including the one inside) is damaged or not and if it stands ten times weight as the equipment. Make sure the architecture can stand ten times weight as all the equipment, clamps, wiring and other additional fixtures.

- Screws for clamping must be fixed firmly. Take one M12 screw (Grade 8.8 or higher) to clamp bracket, and then screw the nuts.

- Level the two hanging points at the bottom of clamp. Insert fastener to the bottom, lock the two levers by 1/4 rotating clockwise; then install another clamp.

- Install on safety string which stands at least ten times weight as equipment. Terminal of the accessory is designed for clamps.

- Check if pan/tilt lock is unlocked or not. Keep the distance more than 1m from equipment to flammable materials.
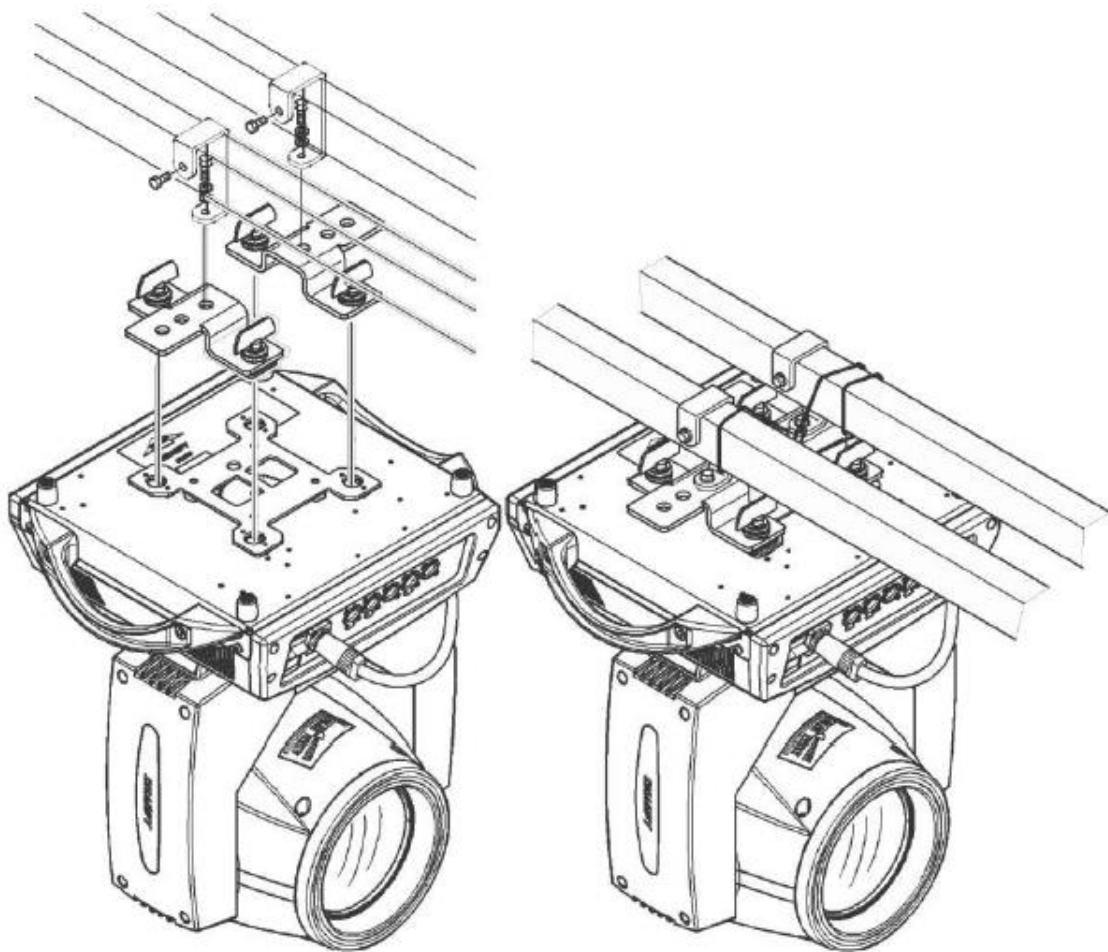
7. DMX-512 Control Connections

This product accepts the international standard DM 512 (1990) of the digital control signal.

Please use the 3 pin or 5pin XLR plugs&socket offed by factory to connect the first projector's input to the second projector output, and connect the second projectors output to the third projectors input and so on. Eventually connect the last projectors output.

The projectors control signal output or input by using the 3 or 5 pin XLR pug and socket. If need to lengthen the communication cable(standard meter is 2 meters),please make sure the both side of 3 or 5 pin plug is one to one.(one to one, two to two, three to three).Otherwise ,the communication cable will be interrupted. The communicate cable is 2-cord screened cable 75Ω resistance with each core having at least a 0.5mm diameter.

It is highly recommend to use the DMX signal terminator for the installation to avoid the electronic noise damage the digital control signal. Simply speaking, DMX terminator is an XLR CINNEXTOR WITH A 120Ω 1/2 W resistor connected across pin 2 and 3. Which is plugged into the output socket on the last projector in the chain. See illustrations below:
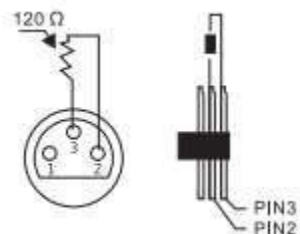
8. Menu Operations

DMX Address	001-512	
Run mode	DMX 16 Channel	
	DMX 24 Channel	
	Auto Run	
	Sound Control	
	Master/Slave mode	
	Light Switch	Sure
		no
	Channel Qty	Simple
		expand
Display settings	Language	中文
		English
	Screen saver	Mode 1
		Mode 2

		Mode 3
	Screen Rotation	On
		Off
	Touch rectify	
Test	Pan	
	Tilt	
	Focus	
	Colour	
	Gobo	
	Prism	
	Frost	
	Strobe	
Advanced setup	Pan invert	On
		Off
	Tilt invert	On
		Off
	P/T rectify on	On
		Off
	Pan Offset	
	Tilt Offset	
	Lamp up when	Reset done
		Power on
		Manual
	Factory setting	Sure
		no
Statue setup	Work mode	
	Address	
	Version	
	Elapse	
	Total	
	DMX clr	
	Sys Rst	

Function Mode

1. Set DMX Address

Click and select the "ADDR", you can enter the page of DMX address setting, range from 1 to 512, the address code should not be greater than 512- channels quantity, otherwise the light will not been controlled.

Enter the page of DMX address, click the blank area in right side of display.

Pop-up diglog will appear, as in Fig. 4. Modify value, then click 'ENTER' to confirm and save DMX address code.

2. Set Light work mode

Enter the page of 'WORK MODE' and modify settings. You can set light work mode, control lamp and DMX channel mode.

Light includes 3 working modes: DMX MODE, AUTO RUN and SOUND MODE.

Parameters are defined as following:

- DMX Mode：When using this mode, the light receives data from DMX controller and move.
- AUTO RUN：When using this mode, light will run with inside code(data), ignoring data from DMX controller.
- SOUND Ctrl：When using this mode, light ignores data from DMX controller. When there is a strong sound in stage, the light will run a scene, otherwise it will keep the last scene.
- M/S Choose ：M/S Choose' is available when light is in 'AUTO RUN' or 'SOUND Ctrl' mode. If this item is set as 'OFF', the light don't send data to other light via DMX Cable. When it is 'ON', the data will be sent to other slave light immediately.
- Lamp control：Turns on lamp when this item is set 'ON', otherwise, turns off lamp. The gap between operation is limited to 30 second.
- Channel mode：Light support 2 DMX Channel mode: sample or extend。

3. Set display

Light supports 2 language, display rotation.

- Language：Select display as simplified Chinese or English.
- Screen Saver：when panel is idle (there is no operation in 10 second), display will enter saver status. When it is set as 'mode 1'，saver status is close display, as 'mode 2' saver status will display DMX address code(DMX MODE) or display LOGO(AUTO RUN or SOUND CTRL). As 'OFF', keep light up display and show main menu.
- Screen Rotation：rotate display.
- Touch enable： Disable or enable touch function, when disable, use encoder to operate light and set parameter.
- Touch adjust：adjust touch function, normally, not enter this item.

4. Test light

Enter the page , Light will go into test mode, in this mode, the light does not receive the data from DMX controller.

- PAN: range for 0 to 255;
- TILT: range for 0 to 255
- FOCUS: range for 0 to 255
- COLOR: range for 0 to 255
- GOBO: range for 0 to 255
- PRISM: range for 0 to 255
- FROST: range for 0 to 255

- STROBE: range for 0 to 255

5. Set light run parameters

- Enter the page, set the parameter of light:
- Pan Invert: Reverse PAN move.
- Tilt Invert: Reverse TILT mover.
- Rectify enable：set as 'OFF', PAN or TILT will disable position rectify function.
- As 'ON', when PAN or TILT lose steps, light will rectify auto.
- Pan Offset: Set PAN original position.
- Tilt Offset: Set TILT original position.
- Lamp up when: Select lamp on mode, includes 3 mode: "power on", "after reset done" and "manual".
- Factory setting: restore all parameter to factory setting.

6. View status

- View light current status, version；
- DMXClr: Click to clear all DMX data to '0'.
- SysRst：Click to reset light.

9. DMX Channels

CH NO	Name	value	Function
CH1	X	0-255	Pan movement by 540°
CH2	Y	0-255	Tilt movement by 270°
CH3	XY speed	0	Max. speed (tracking mode)
		1-255	Speed from max. to min. (vector mode)
CH4	power/macro	0-129	empty
		130-139	Lamp On,reset(total reset except pan/tilt reset)
		140-149	Pan/Tilt reset
		150-189	Effect motor reset
		190-199	Reserved
		200-209	Total reset
		210-229	Reserved
		230-239	Lamp Off
		240-255	Reserved
CH5	Color wheel	0-8	Open/white
		9-17.	Deep Red

		18-26	Deep Blue
		27-36	Yellow
		37-45	Green
		46-54	Magenta
		55-63	Azure
		64-72	Red
		73-81	Dark green
		82-90	Amber
		91-100	Blue
		101-109	Orange
		110-118	CTO
		119-127	UV filter
		128-129	White
		130-134	Deep Red
		135-138	Deep Blue
		139-143	Yellow
		144-147	Green
		148-152	Magenta
		153-157	Azure
		158-161	Red
		162-166	Dark green
		167-171	Amber
		172-176	Blue
		177-180	Orange
		181-185	CTO
		186-189	UV filter
		190-215	Forwards rainbow effect from fast to slow
		216-217	No rotation
		218-243	Backwards rainbow effect from slow to fast
		244-249	Random color selection by audio control
		250-255	Auto random color selection from fast to slow
CH6	speed	0 - 255	Speed of Rot. Gobo selection from max. to min.
CH7	static Gobo		(0-25.5sec.)
		0-3	Open/hole
		4-9.	Gobo1
		10-15	Gobo2
		16-21	Gobo3
		22-27	Gobo4
		28-33	Gobo5

		34-39	Gobo6
		40-45	Gobo7
		46-51	Gobo8
		52-57	Gobo9
		58-63	Gobo10
		64-69	Bean reducer 1
		70-75	Bean reducer 2
		76-81	Bean reducer 3
		82-87	Bean reducer 4
		Shaking gobos from slow to fast	
		88-95	Gobo 1
		96-103	Gobo 2
		104-111	Gobo 3
		112-119	Gobo 4
		120-127	Gobo 5
		128-135	Gobo 6
		136-143	Gobo 7
		144-151	Gobo 8
		152-159	Gobo 9
		160-167	Gobo 10
		168-175	Bean reducer 1
		176-183	Bean reducer 2
		184-191	Bean reducer 3
		192-199	Bean reducer 4
		200-201	Open/hole
		202-221	Forwards gobo wheel rotation from fast to slow
		222-223	No rotation
		224-243	Backwards gobo wheel rotation from slow to fast
		244-249	Random color selection by audio control
		(Set microphone sensitivity in menu "Personality")	
		250-255	Auto random gobo selection from fast to slow
CH8	Rotation Gobo	0	Open/hole (dafault)
		1-4	Hole (flat field)
		5-7	gobo 1
		8-10	gobo 2
		11-13	gobo 3
		14-16	gobo 4
		17-19	gobo 5
		20-22	gobo 6

		23-25	gobo 7
		26-28	gobo 8
		29-31	gobo 9
		32-34	gobo 1
		35-37	gobo 2
		38-40	gobo 3
		41-43	gobo 4
		44-46	gobo 5
		47-49	gobo 6
		50-52	gobo 7
		53-55	gobo 8
		56-59	gobo 9
		Shaking gobos from slow to fast	
		Index -set indexing on channel 12/9	
		60-67	gobo 1
		69-75	gobo 2
		76-83	gobo 3
		84-91	gobo 4
		92-99	gobo 5
		100-107	gobo 6
		108-115	gobo 7
		116-123	gobo 8
		124-129	gobo 9
		Shaking gobos from slow to fast	
		130-137	gobo 1
		138-145	gobo 2
		146-153	gobo 3
		154-161	gobo 4
		162-169	gobo 5
		170-177	gobo 6
		178-185	gobo 7
		186-193	gobo 8
		194-199	gobo 9
		200-201	Open/hole
		202-221	Forwards gobo wheel rotation from fast to slow
		222-223	No rotation
		224-243	backward gobo wheel rotation from slow to fast
		244-249	Random gobo selection by audio control
		(Set microphone sensitivity in menu „Personality")	

		250-255	
CH9	Gobo rotation	0	No rotation
		1-127	Forward gobo rotation from slow to fast
		128_129	No rotation
		130-255	Backwards gobo rotation from slow to fast
CH10	prism	0-19	Open position (hole)
		20-49	6-face linear rotating prism -indexing
		50-75	6-face linear rotating prism- rotation
		76-105	8-face circular rotating prism- Indexing
		106-127	8-face circular rotating prism-rotation
		Prism/gobo macros	
		128-135	macro 1
		136-143	macro 2
		144-151	macro 3
		152-159	macro 4
		160-167	macro 5
		168-175	macro 6
		176-183	macro 7
		184-191	macro 8
		192-199	macro 9
		200-207	macro 10
		208-215	macro 11
		216-223	macro 12
		224-231	macro 13
		232-239	macro 14
		240-247	macro 15
		248-255	macro 16
CH1	Prism rotation	0	No rotation
		1-127	Forwards prism rotation from fast to slow
		128-129	No rotation
		130-255	Backwards prism rotation from slow to fast
CH12	frost	0	Open
		1-179	Frost from 0% to 100%
		180-189	100%
		190-211	Pulse closing from slow to fast
		212-233	Pulse opening from fast to slow
		234-255	Ramping from fast to slow
CH13	zoom	0-255	Zoom from max. To min. Beam angle
CH14	focus	0-255	Continuous adjustment from far to near

CH15	shutter	0-31	Shutter closed (Lamp power reduced to 230 W)
		32-63	Shutter open, Full lamp power
		64-95	Strobe-effect from slow to fast
		96-127	Shutter open
		128-143	Opening pulse in sequences from slow to fast
		144-159	Closing pulse in sequences from fast to slow
		160-191	Shutter open
		192-223	Random strobe-effect from slow to fast
		224-255	Shutter open, Full lamp power
CH16	dimmer	0-255	Dimmer intensity from 0% to 100%

24 channel mode

CH no	Name	Value	Function
CH1	X	0-255	Pan movement by 540°
CH2	X fine	0-255	Fine Pan
CH3	Y	0-255	Tilt movement by 270°
CH4	Y fine	0-255	Fine Tilt
CH5	XY speed	0	Max. speed (tracking mode)
		1-255	Speed from max. to min. (vector mode)
CH6	power/macro	0-129	empty
		130-139	Lamp On, reset(total reset except pan/tilt reset)
		140-149	Pan/Tilt reset
		150-189	Effect motor reset
		190-199	Reserved
		200-209	Total reset
		210-229	Reserved
		230-239	Lamp Off
		240-255	Reserved
CH7	gobo	0-8	Open/white
		9-17.	Deep Red
		18-26	Deep Blue
		27-36	Yellow
		37-45	Green
		46-54	Magenta
		55-63	Azure
		64-72	Red
		73-81	Dark green
		82-90	Amber

		91-100	Blue
		101-109	Orange
		110-118	CTO
		119-127	UV filter
		128-129	White
		130-134	Deep Red
		135-138	Deep Blue
		139-143	Yellow
		144-147	Green
		148-152	Magenta
		153-157	Azure
		158-161	Red
		162-166	Dark green
		167-171	Amber
		172-176	Blue
		177-180	Orange
		181-185	CTO
		186-189	UV filter
		190 - 215	Forwards rainbow effect from fast to slow
		216 - 217	No rotation
		218 - 243	Backwards rainbow effect from slow to fast
		244 - 249	Random color selection by audio control
		250 - 255	Auto random color selection from fast to slow
CH8	Gobo wheel fine	0-255	Color wheel - fin positioning
CH9	speed	0 - 255	Speed of Rot. Gobo selection from max. to min. (0-25.5sec.)
CH10	Static gobo	0-3	Open/hole
		4-9	gobo 1
		10-15	gobo 2
		16-21	gobo 3
		22-27	gobo 4
		28-33	gobo 5
		34-39	gobo 6
		40-45	gobo 7
		46-51	gobo 8
		52-57	gobo 9
		58-63	gobo 10
		64-69	Beam reducer
		70-75	Beam reducer
		76-81	Beam reducer
		82-87	Beam reducer
		Shaking gobos from slow to fast	
		88-95	gobo 1
		96-103	gobo 2
		104-111	gobo 3

		112-119	gobo 4
		120-127	gobo 5
		128-135	gobo 6
		136-143	gobo 7
		144-151	gobo 8
		152-159	gobo 9
		160-167	gobo 10
		168-175	Beam reducer
		176-183	Beam reducer
		184-191	Beam reducer
		192-199	Beam reducer
		200-201	Open/hole
		202-221	Forwards gobo wheel rotation from fast to slow
		222-223	No rotation
		224-243	Backwards gobo wheel
		244-249	Random gobo
		(Set microphone sensitivity in menu „Personality")	
CH11	Rotation gobo	0	Open/hole (dafault)
		1-4	Hole (flat field)
		5-7	gobo 1
		8-10	gobo 2
		11-13	gobo 3
		14-16	gobo 4
		17-19	gobo 5
		20-22	gobo 6
		23-25	gobo 7
		26-28	gobo 8
		29-31	gobo 9
		Rotation - set rotation on channel 12/9	
		32-34	gobo 1
		35-37	gobo 2
		38-40	gobo 3
		41-43	gobo 4
		44-46	gobo 5
		47-49	gobo 6
		50-52	gobo 7
		53-55	gobo 8
		56-59	gobo 9
		Shaking gobos from slow to fast	
		Index - set indexing on channel 12/9	
		60-67	gobo 1
		68-75	gobo 2
		76-83	gobo 3
		84-91	gobo 4

		92-99	gobo 5
		100-107	gobo 6
		108-115	gobo 7
		116-123	gobo 8
		124-129	gobo 9
		Shaking gobos from slow to fast	
		Index - set indexing on channel 12/9	
		130-137	gobo 1
		138-145	gobo 2
		146-153	gobo 3
		154-161	gobo 4
		162-169	gobo 5
		170-177	gobo 6
		178-185	gobo 7
		186-193	gobo 8
		194-199	gobo 9
		200-201	Open/hole
		202-221	Forwards gobo wheel rotation from fast to slow
		222-223	No rotation
		224-243	Backwards gobo wheel rotation from slow to fast
		244-249	Random gobo selection by audio control
		250-255	Auto random color selection from fast to slow
CH12	Gobo rotation	0	No rotation
		1-127	Forwards gobo rotation from fast to slow
		128-129	No rotation
		130-355	Backwards gobo rotation from slow to fast
CH13	Gobo wheel fine	0-255	Rot. gobo indexing and rotation - fine
CH 14	prism	0-19	Open position (hole)
		20 -49	6-face linear rotating prism -indexing
		50 - 75	6-face linear rotating prism- rotation
		76 - 105	8-face circular rotating prism- Indexing
		106-127	8-face circular rotating prism-rotation
		Prism/gobo macros	
		128-135	Macro 1
		136-143	Macro 2
		144-151	Macro 3
		152-159	Macro 4
		160-167	Macro 5
		168-175	Macro 6
		176-183	Macro 7
		184-191	Macro 8
		192-199	Macro 9

		200-207	Macro 10
		208-215	Macro 11
		216-223	Macro 12
		224-231	Macro 13
		232-239	Macro 14
		240-247	Macro 15
		248-255	Macro 16
CH15	Prism rotation	0	No rotation
		1-127	Forwards prism rotation from fast to slow
		128-129	no rotation
		130-255	Backwards prism rotation from slow to fast
CH16	Frost	0	Open
		1-179	Frost from 0%to 100 %
		180-189	100% frost
		190-211	Pulse closing from slow to fast
		212-233	Pulse opening from fast to slow
		234-255	Ramping from fast to slow
CH17	zoom	0-255	Zoom from max. to min.beam angle
CH18	zoom fine	0-255	Fine Zoom
CH19	focus	0-255	Continuous adjustment from far to near
CH20	focus fione	0-255	Fine Focus
CH21	empty		empty
CH23	dimmer	0-255	Dimmer intesity from 0% to 100%
Ch24	Dimmer fine	0-255	Fine dimming

10. Maintenance and Cleaning

The following points have to be considered during the inspection:

- All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
- There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
- Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
- 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.

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

- Clean the inside and outside lens each week to avoid the weakness of the lights due to accumulation of dust.
- Clean the fan each week.
- 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 to clean the device frequently. Please use a moist, lint-free cloth. Never use alcohol solvents.

There are no serviceable parts inside the device. Please refer to the instructions under "Installation instructions".

If you need any spare parts, please order genuine parts from your local dealer.