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## 280W 10R Moving Head Light



## 1. Maintenance

- To reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.
- Intermittently using will extend this item's service life.
- Please clear the fan ,fan net , and optical lens in order to keep good work state.
- Do not use the alcohol or any other organic solvent to wipe the shell.

## 2. Statement

The product has perfect performance and integrity packing. All users should be strictly complying 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.

**Note:** All information is subject to change without prior notice.

## 3. Safety Precaution

- In order to guarantee the product's life, please don't put it in the damp places or even the environment over 60degrees.
- Always mount this unit in safe and stable matter.
- Install or dismantle should operate by professional engineer.
- Using lamp , the change rate of power voltage should be within $\pm 10\%$  , If the voltage is too high, it will shorten the light's life; If it's not enough, will influence the effect.
- Please restart it 20 minutes later after turning off light , until full-cooling. Frequent switching will reduce the life span of lamps and bulbs; intermittent using will improve the life of bulbs and lamps.
- In order to make sure the product is used well, please read the Manual carefully.

## 4. Product Instruction

- lamp: YODN OR OSRAM R10 280W (Color temperature: 9300K)
- Channel mode: 16 / 24 DMX512 Channel
- Pan scan: 540°(16bit) Electric correction
- Tilt scan: 270° (16bit) Electric correction
- Amazing dot matix, four tact switch, 180° turning show

- Color wheel: one color wheel, 13 kinds of color chips in one color wheel
- Static Gobo: 13+WHITE 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 achanical focus .beam angle 3.8°-45°
- Over heat protection
- Power Input: 100-240V, 50/60Hz
- Power Dissipation: 480W
- IP level :IP20
- Magnetic ballast and AC/Dc power supply
- Packing Size: 523x337x570mm
- Net weight: 17.5 KG

## 5. Cable connection (DMX)

Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 120Ohm characteristic impedance, 22-24 AWG, low capacity. Do not use microphone cable or other cable with characteristics differing from those specified. The end connections must be made using XLR type 3 or 5-pin male/female connectors. A terminating plug must be inserted into the last projector with a resistance of 120Ohm (minimum 1/4 W) between terminals 2 and 3.

IMPORTANT: The wires must not make contact with each other or with the metal casing of the connectors. The casing itself must be connected to the shield braid and to pin 1 of the connectors.

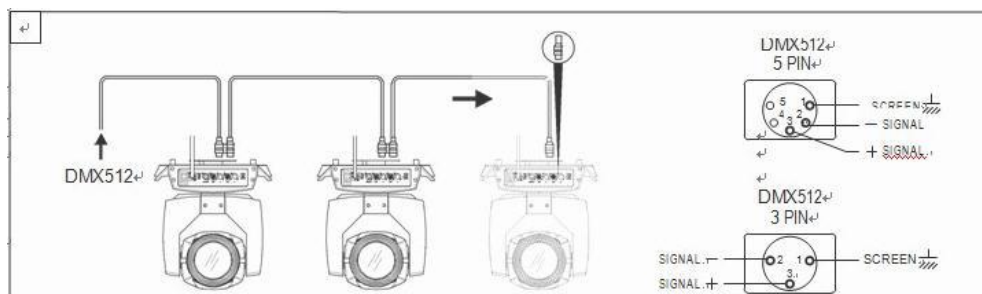


Figure 1 DMX Cable connection

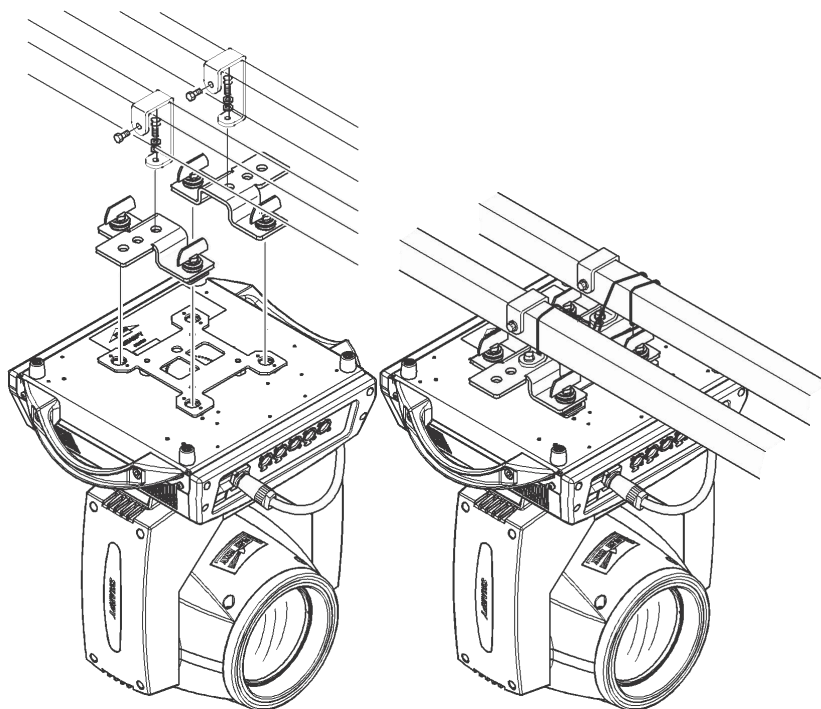
## 6. Rigging (Optional)

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 is 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 side aluminum piece. The secondary accessory can not hang on the delivery handle. Nip the equipment on bracket.

- Check if rigging clamp (not including the one inside) damaged or not? If stand 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.
- Make sure pan/tilt lock unlocked or not. Keep the distance more than 1M from equipment to flammable material or lighting source.



## 7. MENU FUNCTION:

<b>DMX Address</b>	<b>001-512</b>		
<b>RUN MODE</b>	<b>DMX 16 channel</b>		
	<b>DMX 24 channel</b>		
	<b>Auto Run</b>		
	<b>Sound Control</b>		
	<b>Master/Slaver mode</b>		
	<b>Light Switch</b>	<b>sure</b>	
		<b>no</b>	
	<b>Channel Qty</b>	<b>simple</b>	
<b>Display Setting</b>		<b>expand</b>	
	<b>language</b>	<b>中文</b>	
		<b>English</b>	
	<b>Screen Saver</b>	<b>mode 1</b>	
		<b>mode 2</b>	
		<b>mode 3</b>	
		<b>off</b>	
	<b>Screen Rotation</b>	<b>on</b>	
		<b>off</b>	
	<b>Touch Enable</b>	<b>on</b>	
		<b>off</b>	
	<b>Touch Rectify</b>		
<b>Test</b>	<b>Pan</b>		
	<b>Tilt</b>		
	<b>Focus</b>		
	<b>Color</b>		
	<b>Gobo</b>		
	<b>Prism</b>		
	<b>Frost</b>		
	<b>Strobe</b>		
<b>Advanced setup</b>	<b>Pan invert</b>	<b>on</b>	
		<b>off</b>	
	<b>Tilt invert</b>	<b>on</b>	
		<b>off</b>	
	<b>P/T rectify</b>	<b>on</b>	
		<b>off</b>	
	<b>Pan Offset</b>		

	<b>Tilt Offset</b>		
	<b>lamp up when</b>	<b>reset done</b>	
		<b>power on</b>	
		<b>manual</b>	
	<b>Factory setting</b>	<b>sure</b>	
		<b>no</b>	
<b>Statue setup</b>	<b>work mode</b>		
	<b>address</b>		
	<b>version</b>		
	<b>elapse</b>		
	<b>total</b>		
	<b>DMX clr</b>		
	<b>Sys Rst</b>		

## 8 . Function Mode

### 1. Set DMX Address

Click and select the "ADDR", can enter the page of DMX address setting, range from 1 to 512, the address code shouldn't is not greater than (512- channels quantity), otherwise the light will not been controlled. Following is the operation:

Enter the page of DMX address, click the blank area in right side of display will pop-up diglog 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 MOD' and modify setting. Can set light work mode, control lamp and DMX channel mode..

Light includes 3 work mode: DMX MODE, AUTO RUN and SOUND MODE, Parameter definition as following:

- **DMX Mode:** Under this mode, the light receive data from the DMX controller and move.
- **AUTO RUN:** Under this mode, light will run with inside code(data), ignore data from DMX controller.
- **SOUND Ctrl:** Under this mode, light ignore 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 just 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 'ON', the data will send to other slave light immediately.
- **Lamp control:** Turn on lamp when this item is set 'ON', otherwise, turn 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 support 2 language, rotation display, Enter page to set parameter following:

- **Language:** Select display as simplified Chinese or English.
- **Screen Saver:** when panel is idle(these is no operation in 10 second), displayer will enter saver status. When 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 into test mode, in this mode, the light does not receive the data for 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 parameter

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

Enter the page :

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

## 9. DMX CHANNELS

### 16 channel mode

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.

			(0-25.5sec.)
CH7	Static gobo	0-3	Open/hole
		42103	Gobo 1
		42292	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 1
		70-75	Beam reducer 2
		76-81	Beam reducer 3
		82-87	Beam 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	Beam reducer 1
		176-183	Beam reducer 2
		184-191	Beam reducer 3
		192-199	Beam 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 gobo 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 (default)

	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	
	Rotation - set rotation 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
		(Set microphone sensitivity in menu „Personality” )	
		250 - 255	Auto random gobo selection from fast to slow
CH9	Gobo rotation	0	No rotation
		1 - 127	Forwards gobo rotation from fast to slow
		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
CH11	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% frost
		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 - fine 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 1
		70-75	Beam reducer 2
		76-81	Beam reducer 3
		82-87	Beam 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	Beam reducer 1
		176-183	Beam reducer 2
		184-191	Beam reducer 3
		192-199	Beam 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 gobo selection by audio control
		(Set microphone sensitivity in menu „Personality” )	
		250 - 255	Auto random gobo selection from fast to slow
CH11	Rotation gobo	0	Open/Hole (default)
		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	
	Rotation - set rotation 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
		(Set microphone sensitivity in menu „Personality” )	
		250 - 255	Auto random gobo 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 - 255	Backwards gobo rotation from slow to fast
CH13	Gobo wheel fine	0-255	Rot. gobo indexing and rotation - fine
CH14	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 fine	0 - 255	Fine Focus
CH21	empty		empty
CH22	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
CH23	dimmer	0 - 255	Dimmer intensity from 0% to 100%
CH24	Dimmer fine	0-255	Fine dimming

