

XL 1200 PR-2910/PR-2910M

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 for future reference.

PR LIGHTING LTD. http://www.pr-lighting.com INDEX

SAFE USAGE OF THE PROJECTOR	3
INSTALLING THE PROJECTOR	4
FITTING THE LAMP	4
POWER SUPPLY – MAINS	5
CONTROL CONNECTIONS	5
DMX TERMINATOR	6
SETUP OPTIONS-PROJECTOR CONFIGURATION	6
TO SET THE DMX START ADDRESS	6
OPERATION MENU	8
ERROR MESSAGES	11
REPLACING GOBOS	11
DMX PROTOCOL	12
LED INDICATION	17
MAINTENANCE	17
LUBRICATION	17
KEEPING THE PROJECTOR CLEAN	17
TROUBLESHOOTING	18
TECHNICAL DATA	19
ELECTRICAL DIAGRAM	22
COMPONENT ORDER CODES	24

Please note that as part of our ongoing commitment to continuous product development, specifications are subject to change without notice. Whilst every care is taken in the preparation of this manual we reserve the right to change specifications in the course of product improvement. The publishers cannot be held responsible for the accuracy of the information herein, or any consequence arising from them.

Every unit is tested completely and packed properly by the manufacturer. Please make sure the packing and / or the unit are in good condition before installation and use. Should there be any damage caused by transportation, consult your dealer and do not use the unit. Any damage caused by improper use will not be assumed by the manufacturer and / or dealer.

ACCESSORIES

These items are packed together with the projector:

Name	Quantity	Unit	Remark
G clamps	2	Pcs	
XLR cable	1	Pc	3-pin plug
Safety cord	2	Pcs	
Spare gobos	4	Pcs	
This manual	1	Pc	
Ω clamps	2	Pcs	Options

SAFE USAGE OF THE PROJECTOR

When unpacking and before disposing of the carton check there is no transportation damage before using the projector. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.

The projector is for indoor use only, IP20. Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other liquids.

The projector is not designed or intended to be mounted directly on to inflammable surfaces. λ



The projector is only intended for installation, operation and maintenance by qualified personnel.

The projector must be installed in a location with adequate ventilation, at least 50cm from adjacent wall surfaces. Be sure that no ventilation slots are blocked.

Do not project the beam onto inflammable surfaces, minimum distance is 5m. @ 5m 🗉

Avoid direct exposure to the light from the lamp. The light is harmful to the eye.

Do not attempt to dismantle and/or modify the projector in any way.

Electrical connection must only be carried out by qualified personnel.

Before installation, ensure that the voltage and frequency of power supply match the power requirements of the projector.

It is essential that each projector is correctly earthed and that electrical installation conforms to all relevant standards.

Do not connect this device to any other types of dimmer apparatus.

Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.

Keep the lamp clean. Do not touch the lamp glass with bare hand.

The projector should always be installed with a secondary safety fixing. A safety cord is supplied for this; it should be attached as shown in "installing the projector" section.

The lamp used in this projector is a discharge lamp. After switching off don't attempt to restart the projector until lamp has cooled, this will require approx 15 minutes. Switching the lamp on and off at short intervals will reduce the life of both the lamp and the projector. But occasional breaks will prolong the life of the lamp and projector.

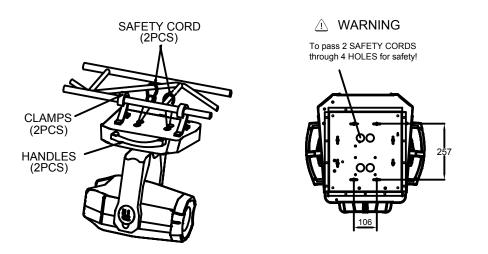
Never run the projector without a lamp.

There is no user serviceable parts inside the projector, do not open the housing and never operate the projector with the covers removed.

Always disconnect from the mains, when the device is not in use or before cleaning it or before attempting any maintenance work !

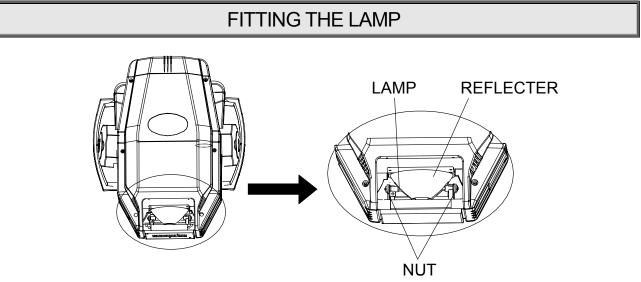
If you have any questions, don't hesitate to consult your dealer or manufacturer.

INSTALL THE PROJECTOR



Take 2 clamps and 2 safety cords out from the package and mount 2 clamps on the underside of fixture with 2 retainers attached to each clamp. Hang the fixture on the structure and fasten the screws attached to each clamp. (See the **WARNING** on the underside of the base as shown above) To pass 2 SAFETY CORDS through 4 HOLES for safety! Always ensure that the projector is firmly anchored to avoid vibration and slipping whilst functioning. Always ensure that the structure that you are going to mount the projector is secure and is strong enough to support a weight of XL 1200. WARNING:

- 1. Unlock the PAN and TILT before the 1st application of projector for safety.
- 2. The projector MUST be lifted or carried by the HANDLES instead of clamps.
- 3. For safety the safety cord should afford 10 times of the unit's weight.



Lock the yoke before fitting/replacing the lamp.

Loosen 4 screws and open the back covers, you can see the structure as shown in the figure above.

Loosen 2 nuts at the both ends of lamp and take out the wom-out lamp. Suggest to free one end after another.

Fit new lamp and fasten 2 screws at the both ends of lamp. **Note:** don't touch the bulb of the new lamp with bare hand so as not to influence the beam output; the PST (pumping stem tip off) on the bulb facing the rear cover with fans perpendicularly and being not in the beam's way is a must and aids cooling.

Close the rear cover and fasten 4 screws.

NOTE: The convex of the nuts should face to the side when fitting the lamp.

WARNING: The MSR series are high-pressure lamps with external igniters (&). Care should always be taken when handling these lamps. Always read the manufacturers "Instructions for use" enclosed with the lamp.

POWER SUPPLY-MAINS

Connect the power cord as follows:

L (live) =brown

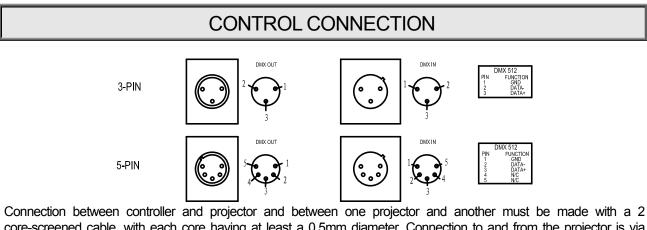
E (earth) =yellow/green

N (neutral) =blue

Use the plug provided to connect the mains power to the projector paying attention to the voltage and frequency marked on the panel of the projector. It is recommended that each projector be supplied separately so that they may be individually switched on and off.

IMPORTANT

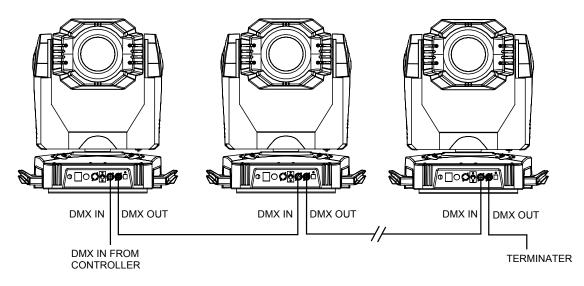
It is essential that each projector is correctly earthed and the electrical installation conforms to all relevant standards.



Connection between controller and projector and between one projector and another must be made with a 2 core-screened cable, with each core having at least a 0.5mm diameter. Connection to and from the projector is via cannon 3 pin (which are included with the projector) or 5 pin XLR plugs and sockets. The XLR's are connected as shown in the figure above.

Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. The body of the plug is not connected in any way. The XL 1200 accepts digital control signals in protocol DMX512 (1990).

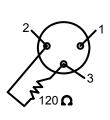
Connect the controller's output to the first fixture's input, and connect the first fixture's output to the second fixture's input and connect the rest fixtures in the same way. Eventually connect the last fixture's output to a DMX terminator as shown in the figure below.

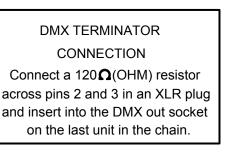


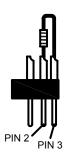
DMX TERMINATOR

In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.

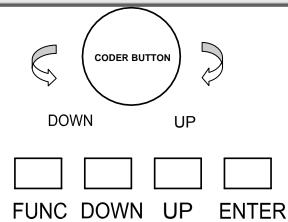
The DMX terminator is simply an XLR connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.







SETUP OPTIONS-PROJECTOR CONFIGURATION



Projector configuration can be set conveniently via pressbutton switch and LCD display. Turn the projector on and the LCD display will show DMX address you set and save last time and it can be reset and saved again as you please.

Launch the projector. Press button ENTER more than 5 seconds to unlock panel.

Press button UP or DOWN if you want to browse through the various Setup Options. There are 8 option codes from DMX Address to Lamp Manual Control, and each code has a specific function. If you turn the coder knob clockwise, the function like as button UP. On the contrary, the function like as button DOWN.

Press button ENTER to save your settings or enter the next menu. There is same function if you push the coder knob. Press button UP or DOWN to shift.

Press button FUNC, it will return to the upper menu one by one. If you stay for minutes defaulted will show display status automatically.

TO SET THE DMX START ADDRESS

Each XL 1200 must be given a DMX start address so that the correct projector responds to the correct control signals. This DMX start address is the channel number from which the projector starts to "listen" to the digital control information being sent out from the controller. The XL 1200 has 3 DMX modes. There are standard mode, extended mode and short mode. For example standard mode has 29 channels, so set the No. 1 projector's address 001, No. 2 projector's address 030, No. 3 projector's address 059, No. 4 projector's address 088, and so on.

Launch the projector. Press button ENTER or coder knob more than 5 seconds to unlock panel.

Press button FUNC to display DMX address;

Press button $\ensuremath{\overline{\text{UP}}}$ and $\ensuremath{\overline{\text{DOWN}}}$, you can set the address;

Press button ENTER to confirm; In the same time. The GREEN LED will flash one time. It means the setting has been enabled.

Press button FUNC, it will return to the upper menu one by one.

OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL
PR LIGHTING XL SERIES XL 1200	DMX Address=001		
DMX Address	DMX Address (001-512)		
Reset	Reset Are You Sure?		
	DMX Mode	DMX Mode Standard 16 DMX Mode Extended 16 DMX Mode Short 8	
	Lamp Control	Lamp Control By Control Channel Lamp Control By	
		Power On Lamp Control By DMX Present	
Config Settings	Factory Settings (Press button DOWN/UP/ENTER at the same time to enter the sub-menu)	Fixture type (WARNING: Never change the fixture type or the system will be damaged!)	Fixture type= XL 1200 Fixture type= XL 700 Fixture type= XL 575 Fixture type= XL 1200 FS Fixture type= XL 1200 Wash Fixture type= XL 700 Wash Fixture type= XL 700 Wash
Option Settings	Colour Positions	Colour Positions STEPPED Colour Positions	
	F-Gobo Positions	LINEAR F-Gobo Positions STEPPED F-Gobo Positions LINEAR	
	Pan DMX Invert	Pan DMX Invert OFF Pan DMX Invert ON	
	Tilt DMX Invert	Tilt DMX Invert OFF Tilt DMX Invert ON	
	Pan Tilt Swap	Pan Tilt Swap OFF Pan Tilt Swap ON	
	Dimmer Invert	Dimmer Invert OFF Dimmer Invert ON	
	Iris Invert	Iris Invert OFF Iris Invert ON	
	Zoom Invert	Zoom Invert OFF Zoom Invert ON	

		CMY Invert OFF	
	CMY Invert	CMY Invert	
		ON OTO krunt	
		CTO Invert OFF	
	CTO Invert	CTO Invert	
-		ON Defaults	
	Defaults	OFF	
	Delaulis	Defaults	
		Restore Defaults Display	
	Display Mode	On Always	
	Diopidy Mode	Display Off After Delay	
		Disp Dim Level	
		Min Disp Dim Level	
		. 1	
		Disp Dim Level 2	
		Disp Dim Level	
		3 Disp Dim Level	
		4	
Dian la continua	Display Dimming	Disp Dim Level 5	
Display Options		Disp Dim Level	
		6 Disp Dim Level	
		7 Disp Dim Level	
		8	
		Disp Dim Level 9	
		Disp Dim Level	
_		Full	
	Display Contrast	Display Contrast XXX(1~36, Default is 16)	
		Language =	
	Display Language	English Language =	
		Chinese Lamp Hours =	Reset Lamp Hours
Information	Lamp Hours	XX	Are You Sure?
	Total Hours	Total Hours = XX	
		Display Board	Display Board =
			XX℃ Driver Board 1 =
		Driver Board 1	XX °C
		Driver Board 2	Driver Board 2 = XX ℃
	Temperature	Driver Board 3	Driver Board 3 =
		Driver Board 4	XX °C Driver Board 4 =
			XX ℃ Pan and Tilt =
		Pan and Tilt	XX °C
		Head Sensor	Head Sensor= XX °C
-	Software Version	Display Board	Display Board = X.X.X
			Driver Board 1 =
		Driver Board T	1/1/1/
		Driver Board 1	X.X.X Driver Board 2 =
		Driver Board 2	Driver Board 2 = X.X.X
			Driver Board 2 = X.X.X Driver Board 3 = X.X.X
		Driver Board 2	Driver Board 2 = X.X.X Driver Board 3 =

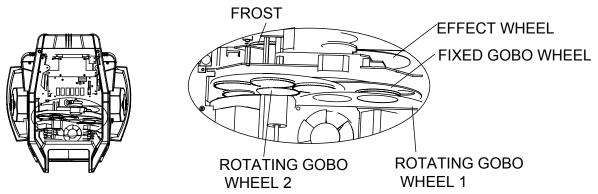
		Power Board	Power Board = X.X.X
	View DMX values	DMX Channel 1=0	
	Factory Setup	Factory Setup OFF	
Test Modes	Factory Setup	Factory Setup ON	
	Self Test	Self Test OFF	
		self test ON	
Lamp Manual	Lamp Status	Status = XXX Control = X	
Control	Turn Lamp On		
	Turn Lamp Off		

ERROR MESSAGES

In the course of launch, XL 1200 examines automatically whether there are errors and if there are, it will display information as follows:

Dis	splay	Message
Sensor Err	S1-M1	Colour wheel (1# drive board motor 1) error
Sensor Err	S1-M2	CTO (1# drive board motor 2) error
Sensor Err	S1-M3	CYM-cyan (1# drive board motor 3) error
Sensor Err	S1-M4	CYM-yellow (1# drive board motor 4) error
Sensor Err	S1-M5	CYM-magenta (1# drive board motor 5) error
Sensor Err	S2-M3	Fixed Gobo wheel (2# drive board motor 3) error
Sensor Err	S2-M4	Rotating Gobo wheel 1 (2# drive board motor 4) error
Sensor Err	S2-M5	Gobo rotation 1 (2# drive board motor 5) error
Sensor Err	S3-M1	Rotating Gobo wheel 2 (3# drive board motor 1) error
Sensor Err	S3-M2	Gobo rotation 2 (3# drive board motor 2) error
Sensor Err	S3-M3	Prism (3# drive board motor 3) error
Sensor Err	S3-M4	Prism rotation (3# drive board motor 4) error
Sensor Err	S3-M5	Focus (3# drive board motor 5) error
Sensor Err	S3-M6	Zoom (3# drive board motor 6) error
Sensor Err	S4-M1	Effects wheel (4# drive board motor 1) error

REPLACING GOBOS



Disconnect the fixture from power. Lock Tilt. Carefully lift off the cover by undoing the 6 screws.

For gobos replacement on the fixed gobo: Remove the gobo and insert the new one into the position by hands.

For gobos replacement on the rotating gobo wheel: Remove the gobo holder with gobo from gobo wheel by hands.

Pull out the spring and drop the old gobo out of the holder.

Insert the new gobo into the holder, and then insert the spring with the narrow end against the gobo. Push the end of the spring in under lip of the holder.

Pick the spring clip up and put the gobo holder back into the position, if necessary, a small screwdriver will be helped.

Note: If the gobo is a glass one, it should be touched with glabrous, clean and soft tissue or cloth matted between hand and glass instead of with bare hand.

Close the rear cover and fasten 6 screws.

DMX PROTOCOL

1 1 1 Strobe 000-010 Black 1 1 1 Strobe 000-010 Black 2 2 2 2 Dimmer 000-007 Black 3 3 3 Dimmer Fine 000-007 Black 000-016 3 3 A CYM Macro 000-0255 Dimmer in 16 Bit precision 3 3 3 4 CYM Macro 000-016 White 074-052 C/M< Velow Velow Velow Magenta=Red 038-054 4 4 5 CYM-Velow 000-255 Cym C/M-Velow 074-052 C/M Velow Cym Cym 000-255 Cym Cym 1 6 CYM-Velow 000-255 Cym Cym Velow	Short mode	Standard mode	Extended mode	FUNCTION	DMX	DESCRIPTION
1 1 1 Strobe 026-225 Strobe speed from slow to fast 2 2 2 Dimmer 000-007 Black 3 3 Dimmer Fine 000-255 Dimmer in 16 Bit precision 000-016 While 000-255 Dimmer in 16 Bit precision 3 3 4 CYM Macro 000-016 While 017-035 Yellow+ Magenta=Red 036-054 Yellow+ OpaneGreen 074-092 Cyan 000-255 Cyan making from slow to fast 4 4 5 CYM-Cyan 000-255 Cyan in 16 Bit precision 5 5 7 CYM-Yellow 000-255 Cyan in 16 Bit precision 6 6 9 CYM-Magenta 000-255 Magenta (Linear 0-100%) 6 6 9 CYM-Magenta 000-255 Magenta (Linear 0-100%) 7 7 11 CTO 000-255 Magenta (Linear 0-100%) 6 9 CYM-Magenta 000-255 Magenta (Linear 0-100%)					000-010	Black
1 1 1 2 2 2 2 Dimmer 226 255 Open 2 2 2 Dimmer Fine 000-070 Black 000-070 Black 3 Dimmer Fine 000-255 Dimmer in 16 Bit precision 000-016 White 3 3 4 CYM Macro 036-054 Yellow+ (Van=Green 074-092 Cyan Orgentation 036-054 Yellow+ (Van=Green 074-092 Cyan Orgentation 036-054 Yellow+ (Van=Green 074-092 Cyan Orgentation 036-054 Yellow+ (Van=Green 074-092 Cyan Magenta 000-255 Cyan (Inea P-100%) 111-128 Magenta 000-255 Cyan in 16 Bit precision 16 5 5 7 CYM-Yeltow 000-255 Yeltow (Linear 0-100%) 6 6 9 CYM-Magenta 000-255 Magenta in 16 Bit precision 7 7 11 CTO 000-255 Magenta in 16 Bit precision	4	4		Otraha	011-025	Open
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2 2 2 Dimmer 008-255 Dimming from dark to light (0-100%) 3 Dimmer Fine 000-255 Dimmer in 16 Bit precision 3 3 A Output Output Magenta=Red 3 3 4 CYM Macro Other Van=Green Other Van=Green 3 3 4 CYM Macro Other Van=Green Other Van=Green 3 3 4 CYM-Cyan Other Van=Green Other Van=Green 4 4 5 CYM-Cyan Other Van=Green Other Van=Green 5 5 7 CYM-Cyan Other Van=Green Other Van=Green 5 5 7 CYM-Cyan Other Van=Green Other Van=Green 6 6 9 CYM-Van=Green Other Van=Green Other Van=Green 6 6 9 CYM-Van=Green Other Van=Green Other Van=Green 7 7 11 CTO Other Van=Green Other Van=Green 6 9 <t< td=""><td></td><td></td><td></td><td></td><td>226-255</td><td>Open</td></t<>					226-255	Open
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134-139Rainbow rotation speed 2140-145Rainbow rotation speed 3						
140-145 Rainbow rotation speed 3					128-133	Rainbow rotation speed 1 (slowest)
					134-139	Rainbow rotation speed 2
					140-145	Rainbow rotation speed 3
					146-151	Rainbow rotation speed 4

		r		T	1
				152-157	Rainbow rotation speed 5
				158-163	Rainbow rotation speed 6
				164-169	Rainbow rotation speed 7
				170-175	Rainbow rotation speed 8
				176-181	Rainbow rotation speed 9
				182-187	Rainbow rotation speed 10
				188-195	Stop in current position
					Rainbow reverse rotation speed
				196-201	1(slowest)
				202-207	Rainbow reverse rotation speed 2
				208-213	Rainbow reverse rotation speed 3
				214-219	Rainbow reverse rotation speed 4
				220-225	Rainbow reverse rotation speed 5
				226-231	Rainbow reverse rotation speed 6
				232-237	Rainbow reverse rotation speed 7
				238-243	Rainbow reverse rotation speed 8
				244-249	Rainbow reverse rotation speed 9
				250-255	Rainbow reverse rotation speed 0
				000-135	Iris from large to small (0-100%)
9	9	14	Iris	136-231	Macro
_	-		-	232-255	Minimal
		15	Iris Fine	000-255	Iris n 16 Bit precision
10	10	16	Fixed Gobo	000-016	Clear
			Wheel	017-032	Gobo1
				033-048	Gobo 2
				049-064 065-080	Gobo 3 Gobo 4
				081-096	Gobo 5
				097-112	Gobo 6
				113-127	Gobo 7
				128-132	Reverse rotation speed 1 (slowest)
				133-135	Reverse rotation speed 2
				136-138	Reverse rotation speed 3
				139-141	Reverse rotation speed 4
				142-144	Reverse rotation speed 5
				145-147	Reverse rotation speed 6
				148-150 151-153	Reverse rotation speed 7(fastest) Rotation speed 1 (slowest)
				154-156	Rotation speed 2
				157-159	Rotation speed 3
				160-162	Rotation speed 4
				163-165	Rotation speed 5
				166-168	Rotation speed 6
				169-171	Rotation speed 7(fastest)
				172-174	Gobo 1 shake 1(slowest)
				175-177	Gobo 1 shake 2
				178-180	Gobo 1 shake 3
				181-183 184-186	Gobo 1 shake 4 (fastest) Gobo 2 shake 1(slowest)
				187-189	Gobo 2 shake 1 (slowest) Gobo 2 shake 2
				190-192	Gobo 2 shake 3
				193-195	Gobo 2 shake 4 (fastest)
				196-198	Gobo 3 shake 1(slowest)
				199-201	Gobo 3 shake 2
				202-204	Gobo 3 shake 3
				205-207	Gobo 3 shake 4 (fastest)

11 11 17 12<					208-210	Gobo 4 shake 1(slowest)
11 11<						
11 11 17 Rotating Gobo Wheel 1 217.219 Gobo 4 shake 4 (fastest) 11 11 17 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) 12 12 18 Gobo rotation 1 Rotation speed 3 12 12 18 Gobo rotation 1 Rotation speed 3 13 19 Gobo rotation 1 Reverse rotation speed 3 Reverse rotation speed 3 13 14 20 Reverse rotation speed 3 Reverse rotation speed 4 (fastest)						
11 11<						
11 11 11 17 Rotating Gobo Shake fast 222-223 Gobo S shake 3 222-223 Gobo S shake 4 (fastest) 232-234 Gobo S shake 2 233-237 Gobo S shake 2 232-237 Gobo S shake 2 232-236 Gobo S shake 51 232-236 Gobo S shake 51 232-236 Gobo S shake 51 232-236 Gobo S shake 6ast 221-227 Gobo S shake 6ast 221-2						
11 11<						
11 11 11 17 Rotating Gobo Shake 4 (fastest) 11 11 11 17 Rotating Gobo Shake fast Shake fast 11 11 11 17 Rotating Gobo Shake fast Shake fast 11 11 11 17 Rotating Gobo Shake fast Shake fast 11 11 11 17 Rotating Gobo Shake fast Shake fast 11 11 11 17 Rotating Gobo Shake fast Shake fast 11 11 11 17 Rotating Gobo Shake fast Shake fast 11 11 11 17 Rotating Gobo Shake fast Shake fast 11 11 11 17 Rotating Gobo Shake fast Shake fast 11 11 11 17 Rotating Gobo Shake fast Shake fast 12 12 18 Gobo rotation 1 Shake fast Shake fast Shake fast						
11 11 11 17 Rotating Gobo Wheel 1 Gobo of shake 1 (fabrest) 235-237 Gobo 6 shake 2 238-240 Gobo 6 shake 3 241:243 Gobo 7 shake 3 241:243 Gobo 7 shake 3 242:4246 Gobo 7 shake 3 247:249 Gobo 7 shake 3 250:252 Gobo 7 shake 3 250:252 Gobo 7 shake 3 250:252 Gobo 7 shake 4 (fastest) 000:021 white 000:021 white 3 000:021 white 3 250:252 Gobo 7 shake 4 (fastest) 000:021 white 3 250:252 Gobo 7 shake 4 (fastest) 000:021 white 3 250:252 Gobo 7 shake 4 (fastest) 017:127 Gobo 1 000:021 white 3 11 11 17 Rotating Gobo Wheel 1 17:1717 Reverse rotation speed 1 (slowest) 115:191 Gobo 1 shake fast 200:212 Gobo 2 shake fast 201:192 122:122 Gobo 2 shake fast 202:226 Gobo 3 shake fast 202:226 123:129 Gobo 2 shake fast 202:226 Gobo 3 s						
11 11<						
11 11 17 Rotating Gobo Gobo 6 shake 3 (fastes1) 241:243 Gobo 7 shake 4 (fastes1) 247:249 Gobo 7 shake 3 (fastes1) 250:252 Gobo 7 shake 3 (fastes1) 260:252 Gobo 7 shake 3 (fastes1) 000-021 while 000-021 while 000-021 while 000-021 while 000-021 while 000-021 while 001-021 while 000-021 while 002-024 Gobo 7 shake 3 (fastes1) 000-021 while 0043-064 Gobo 7 shake 3 Gobo 7 shake 3 000-021 0045-065 Gobo 2 006-061 Gobo 3 006-061 107-127 Gobo 5 Reverse rotation speed 1 131 177-183 Reverse rotation speed 2 131 11 11 17 Reverse rotation speed 1 (slowest) 164-170 Reverse rotation speed 1 (slowest) 152-156 Rotation speed 1 Gobo 1 shake fast 129-205 Gobo 1 shake fast 121-27 199-205 Gobo 2 shak						
11 11 17 Rotating Gobo 11 11 17 Rotating Gobo 11 11 17 Rotating Gobo 12 12 13 16 12 12 18 Gobo relation speed 1 (slowest) 11 11 17 Rotation gobo 160-16 11 11 17 Rotation gobo 160-16 11 11 17 Rotation gobo 160-16 13 14 20 Rotation speed 1 (slowest) 160-16 11 11 17 Rotation gobo 11 17 11 11 17 Rotation gobo 160-16 Gobo 3 160-16 11 11 17 Rotation speed 1 (slowest) 17 17 12 13 14 143-149 Rotation speed 1 (slowest) 16 13 14 16 Gobo 1 shake fast 20 13 16 16 16 17 17 17 Reverserotation sp						
11 11 11 17 Rotating Gobo Gobo 7 shake 1 (followest) 11 11 17 Rotation Speed 2 Gobo 7 shake 3 11 11 17 Rotation Speed 1 (slowest) 11 11 17 Rotation Speed 1 (slowest) 11 11 17 Rotation Speed 1 (slowest) 11 11 17 Rotating Gobo Gobo 7 shake 3 (slowest) 11 11 17 Rotating Gobo Gobo 5 (slowest) 11 11 17 Rotating Gobo Gobo 5 (slowest) 11 11 17 Rotating Gobo Reverse rotation speed 1 (slowest) 11 11 17 Rotating Gobo Gobo 1 Reverse rotation speed 3 107-187 11 11 17 Reverse rotation speed 3 177-187 Reverse rotation speed 3 11 17 177 Reverse rotation speed 3 177-187 Reverse rotation speed 1 12 12						
11 11 17 Rotating Gobo Gobo 7 shake 3 Gobo 7 shake 3 11 11 17 Rotating Gobo Gobo 7 shake 4 (fastest) 11 11 17 Rotating Gobo Gobo 7 shake 4 (fastest) 11 11 17 Rotation Speed 1 (slowest) Gobo 7 shake 3 11 11 17 Rotation Speed 1 (slowest) Gobo 7 shake 4 (fastest) 11 11 17 Rotation Speed 1 (slowest) Gobo 7 shake 4 (fastest) 11 11 17 Rotation Speed 1 (slowest) Gobo 7 shake 4 (fastest) 11 11 17 Rotation Speed 1 (slowest) Gobo 7 shake 4 (fastest) 11 11 17 Rotation Speed 1 (slowest) Gobo 7 shake 4 (fastest) 11 11 17 Rotation Speed 1 (slowest) Gobo 7 shake 4 (fastest) 128-198 Rotation Speed 1 (slowest) Gobo 7 shake fast Gobo 7 shake 6 slow 120-226 Gobo 3 shake fast Gobo 7 shake fast Gobo 7 shake 6 slow 227-233 Gobo 4 shake fast Gobo 7 shake 8 slow						
11 11 11 17 Rotating Gobo Wheel 1 Gobo rotation 1 Gobo 7 shake 3 (fastest) 11 11 11 17 Rotating Gobo Wheel 1 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) 11 11 17 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) 11 11 17 Rotating Gobo Wheel 1 Reverse rotation speed 1 (slowest) 12 13 14 20 Shake Sow 222-228 Gobo 7 shake Sow 233 11 11 17 Rotating Gobo Wheel 1 Reverse rotation speed 1 (slowest) 14 17 Reverse rotation speed 3 150-156 Rotation speed 3 177-17 Reverse rotation speed 4 (fastest) 157-163 Reverse rotation speed 4 (fastest) 192-198 Gobo 1 shake slow 220-226 Gobo 3 shake fast 220-226 192-205 Gobo 2 shake fast 221-226 Gobo 3 shake fast 222-228 213-219 Gobo 3 shake fast 221-226 Gobo 3 shake fast 221-226 222-226 Gobo 3 shake fast 222-226 Gobo 3						
11 11 17 Rotating Gobo Wheel 1 Cobo 7 shake 4 (fastest) 11 11 17 Rotating Gobo Wheel 1 Cobo 2 Cobo 1 11 11 17 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) Cobo 3 11 11 17 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) Cobo 5 11 11 17 Rotating Gobo Wheel 1 Reverse rotation speed 1 (slowest) 11 11 17 Rotating Gobo Wheel 1 Reverse rotation speed 1 (slowest) 11 17 Rotation speed 1 (slowest) Tritic Reverse rotation speed 2 11 17 Reverse rotation speed 3 Tritic Reverse rotation speed 3 11 17 Reverse rotation speed 4 (fastest) Tritic Reverse rotation speed 3 12 12 12 Rotation speed 1 (slowest) Tritic Reverse rotation speed 1 12 12 18 Gobo rotation 1 Tritic Reverse rotation speed 3 12 12 18 Gobo rotation 1 Tritic Reverse rotation speed 3 12 12						
11 11 17 Rotating Gobo Wheel 1 000-021 white 022.042 Gobo 1 11 11 17 Rotating Gobo Wheel 1 086-106 Gobo 4 11 11 17 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) 11 11 17 Rotation speed 1 (slowest) 11 17 Reverse rotation speed 1 (slowest) 11 11 17 Reverse rotation speed 1 (slowest) 11 11 17 Reverse rotation speed 1 (slowest) 11 11 17 Reverse rotation speed 3 157-163 Reverse rotation speed 3 177-17 164-170 Reverse rotation speed 3 171-177 171-177 Reverse rotation speed 3 171-177 172 18 Gobo 1 shake fast 206-21 206-212 Gobo 2 shake slow 220-226 Gobo 3 shake fast 212-227 Gobo 3 shake fast 220-226 Gobo 3 shake fast 212-127 Rotation speed 4 152-159 Rotation speed 4 124-1247						
11 11 11 17 Rotating Gobo Wheel 1 Gobo 1 Gobo 3 Gobo 4 11 11 17 Rotating Gobo Wheel 1 Rotating Sobo Wheel 1 Rotating Speed 1 (slowest) 135-142 Rotation speed 1 (slowest) Rotation speed 1 (slowest) 157-163 Reverse rotation speed 1 (slowest) 164-170 Reverse rotation speed 3 171-177 Reverse rotation speed 3 185-191 Gobo 1 shake slow 192-206 Gobo 2 shake fast 212-226 Gobo 3 shake slow 220-226 Gobo 3 shake slow 220-226 Gobo 2 shake fast 227-232 Gobo 4 shake fast 227-232 Gobo 4 shake fast 227-232 Gobo 2 shake fast 227-232 Gobo 4 shake fast 248-255 Gobo 5 shake slow 248-255 Gobo 5 shake fast 248-256 Gobo 5 shake fast 248-257 Rotation speed 1 (slowest) 128-135 Rotation speed 3 141-157 Rotation speed 4 152-159						
11 11 17 Rotating Gobo Wheel 1 Gobo - 4 Gobo - 4 11 11 17 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) Gobo - 4 11 11 17 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) Gobo - 4 113:5:142 Rotation speed 1 (slowest) Gobo - 5 Reverse rotation speed 2 114:3:149 Rotation speed 2 Gobo - 1 Reverse rotation speed 3 150:156 Rotation speed 3 Gobo - 1 shake slow Gobo - 1 shake slow 192:198 Gobo - 1 shake slow Gobo - 2 shake fast 20:20:226 Gobo 3 shake slow 20:20:212 Gobo - 4 shake slow 22:24:240 Gobo - 4 shake slow 22:24:240 20:21:2 Gobo - 4 shake fast 22:22:23 Gobo - 4 shake fast 22:22:23 21:21:27 Rotation speed 1 (slowest) 12:1:12 Rotation speed 3 11:1:11 12 12 18 Gobo rotation 1 11:1:1:12 Rotation speed 1 (slowest) 22:32:30 Reverse rotation speed 3 11:1:1:12 Rotation speed 3 11:11:11:1						
11 11 17 Rotating Gobo Wheel 1 Rotation Speed 1 (slowest) 11 11 17 Rotation Speed 1 (slowest) 135:142 Rotation speed 1 (slowest) 150:156 Rotation speed 1 (slowest) 150:156 Rotation speed 1 (slowest) 150:157 Rotation speed 1 (slowest) 150:158 Reverse rotation speed 2 171:177 Reverse rotation speed 4 (fastest) 185:191 Gobo 1 shake slow 192:198 Gobo 1 shake fast 206:212 Gobo 3 shake slow 206:212 Gobo 3 shake slow 202:226 Gobo 3 shake slow 202:226 Gobo 4 shake slow 220:226 Gobo 3 shake slow 221:219 Gobo 4 shake fast 224:225 Gobo 5 shake slow 224:225 Gobo 5 shake fast 221:210 -Gobo 5 shake fast 221:217 Rotation speed 1 (slowest) 128:18 Rotation speed 1 (slowest) 128:19 Rotation speed 1 (slowest) 129:19 Gobo 5 shake fast						
11 11 17 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) 11 11 17 Rotation Gobo Wheel 1 Rotation speed 1 (slowest) 11 11 17 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) 150-156 Rotation speed 1 (slowest) 157-163 Reverse rotation speed 2 171-177 Reverse rotation speed 1 (slowest) 164-170 Reverse rotation speed 4 (fastest) 171-177 Reverse rotation speed 1 (slowest) 171-177 Reverse rotation speed 4 (fastest) 185-191 Gobo 1 shake fast 199-205 Gobo 2 shake fast 206-212 185-191 Gobo 3 shake fast 227-233 Gobo 4 shake slow 208-212 220-226 Gobo 3 shake fast 227-233 Gobo 4 shake slow 2248-255 2241-247 Gobo 5 shake fast 221-217 Rotation speed 1 (slowest) 128-135 221-223 Gobo 7 shake fast 221-127 Rotation speed 1 (slowest) 128-135 128-135 Rotation speed 1 (slowest) 128-135 Rotation speed 3 144-151 160-167 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
11 11 11 17 Rotating Gobo Wheel 1 Rotation speed 1 (slowest) (157-163 Reverse rotation speed 2 (fastest) 11 11 17 Rotating Gobo Wheel 1 Rotation speed 2 (fastest) Rotation speed 2 (fastest) 157-163 Reverse rotation speed 1 (slowest) 160-156 Rotation speed 2 (fastest) 164-170 Reverse rotation speed 2 (fastest) 164-170 Reverse rotation speed 2 (fastest) 178-184 Reverse rotation speed 4 (fastest) 168-191 Gobo 1 shake slow 199-205 Gobo 2 shake slow 206-212 Gobo 3 shake fast 217-233 Gobo 4 shake fast 212-226 Gobo 3 shake slow 220-226 Gobo 3 shake fast 227-233 Gobo 4 shake fast 211-127 Rotation speed 1 (slowest) 128-135 Rotation speed 3 124-1247 Gobo 5 shake slow 248-255 Gobo 4 shake fast 220-226 Gobo 5 shake slow 248-255 Gobo 4 shake fast 211-127 Rotation speed 1 (slowest) 128-135 Rotation speed 3 124-127 Rotation speed 3 144-151 Rotati						
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				Wheel 2	022-042	Gobo1

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				043-064	Gobo 2
				065-085	Gobo 3
				086-106	Gobo 4
				107-127	Gobo 5
				128-134	Rotation speed 1 (slowest)
				135-142	Rotation speed 2
				143-149	Rotation speed 3
				150-156	Rotation speed 4 (fastest)
				157-163	Reverse rotation speed 1 (slowest)
				164-170	Reverse rotation speed 2
				171-177	Reverse rotation speed 3
				178-184	Reverse rotation speed 4 (fastest)
				185-191	Gobo 1 shake slow
				192-198	Gobo 1 shake fast
				199-205	Gobo 2 shake slow
				206-212	Gobo 2 shake fast
				213-219	Gobo 3 shake slow
				220-226	Gobo 3 shake fast
				227-233	Gobo 4 shake slow
				234-240	Gobo 4 shake fast
				241-247	Gobo 5 shake slow
				248-255	Gobo 5 shake fast
				000-120	0~540°index
				121-127	Rotation speed 1 (slowest)
				128-135	Rotation speed 2
				136-143	Rotation speed 3
				144-151	Rotation speed 4
				152-159	Rotation speed 5
				160-167	Rotation speed 6
				168-175	Rotation speed 7
				176-183	Rotation speed 8 (fastest)
14	15	21	Gobo rotation 2	184-191	Stop rotating
				192-199	
					Reverse rotation speed 1 (slowest)
				200-207	Reverse rotation speed 2
				208-215	Reverse rotation speed 3
				216-223	Reverse rotation speed 4
				224-231	Reverse rotation speed 5
				232-239	Reverse rotation speed 6
				240-247	Reverse rotation speed 7
				248-255	Reverse rotation speed 8 (fastest)
	16	22	Gobo rotation 2 Fine	000-255	Gobo rotation in 16 Bit precision
				000-143	Frosting from slight to strong (0~100%)
15	17	23	Prism / Frost	144-200	Prism 1
	1	1			
_				201-255	Prism 2
	18	24	Prism rotation	201-255 000-120	Prism 2 Prism index (0~540°)
16	18	24	Prism rotation	000-120	Prism index (0~540°)
	18	24	Prism rotation	000-120 121-127	Prism index (0~540°) Reverse rotation speed 1 (slowest)
	18	24	Prism rotation	000-120 121-127 128-135	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2
	18	24	Prism rotation	000-120 121-127 128-135 136-143	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4 Reverse rotation speed 5
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159 160-167	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4 Reverse rotation speed 5 Reverse rotation speed 6
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159 160-167 168-175	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4 Reverse rotation speed 5 Reverse rotation speed 6 Reverse rotation speed 7
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183	Prism index(0~540°)Reverse rotation speed 1 (slowest)Reverse rotation speed 2Reverse rotation speed 3Reverse rotation speed 4Reverse rotation speed 5Reverse rotation speed 6Reverse rotation speed 7Reverse rotation speed 8 (fastest)
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4 Reverse rotation speed 5 Reverse rotation speed 6 Reverse rotation speed 7 Reverse rotation speed 8 (fastest) Stop in current position
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4 Reverse rotation speed 5 Reverse rotation speed 6 Reverse rotation speed 7 Reverse rotation speed 8 (fastest) Stop in current position Rotation speed 1 (slowest)
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4 Reverse rotation speed 5 Reverse rotation speed 6 Reverse rotation speed 7 Reverse rotation speed 8 (fastest) Stop in current position Rotation speed 1 (slowest) Rotation speed 2
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4 Reverse rotation speed 5 Reverse rotation speed 6 Reverse rotation speed 7 Reverse rotation speed 8 (fastest) Stop in current position Rotation speed 1 (slowest)
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4 Reverse rotation speed 5 Reverse rotation speed 6 Reverse rotation speed 7 Reverse rotation speed 8 (fastest) Stop in current position Rotation speed 1 (slowest) Rotation speed 2
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4 Reverse rotation speed 5 Reverse rotation speed 6 Reverse rotation speed 7 Reverse rotation speed 8 (fastest) Stop in current position Rotation speed 1 (slowest) Rotation speed 3
	18	24	Prism rotation	000-120 121-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223	Prism index (0~540°) Reverse rotation speed 1 (slowest) Reverse rotation speed 2 Reverse rotation speed 3 Reverse rotation speed 4 Reverse rotation speed 5 Reverse rotation speed 6 Reverse rotation speed 7 Reverse rotation speed 8 (fastest) Stop in current position Rotation speed 2 Rotation speed 3 Rotation speed 4

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				248-255	Rotation speed 8 (fastest)
17	10	19 25	Effect Wheel	000-020	White
17	10			021-255	Wheel full into beam gradually
				000-125	Rotation speed from fast to slow
18	20	26	Effect Wheel	126-141	Stop in current position
10	20	20	Rotation	142-255	Reverse rotation speed from slow to fast
19	21	27	Focus	000-255	Linearly focusing
		28	Focus Fine	000-255	Focus in 16 precision
20	22	29	Zoom	000-255	From large to small
		30	Zoom Fine	000-255	Zoom in 16 precision
21	23	31	Beam Angle Lens	000-255	Wide Beam angle lens insert
22	24	32	Pan	000-255	Pan rotation 450°
	25	33	Pan Fine	000-255	Pan rotation in 16 precision
23	26	34	Tilt	000-255	Tilt rotation 270°
	27	35	Tilt Fine	000-255	Tilt rotation in 16 precision
	28	36	Pan & Tilt speed	000-255	Pan&Tilt speed from fast to slow
				000-048	Reserved
				049-080	Reset
				081-112	Reserved
24	29	37	Control	113-144	Lamp off (stop in DMX value for 10 s)
24	24 29 37	57		145-168	Reserved
				169-200	Lamp power reduced to 50%
				201-223	Reserved
				224-255	Lamp on (See remark below)

Remark:

If you intend to turn on/off the lamp via the last channel of the controller, don't attempt to push the channel to value 224-255 immediately after turning it off, or push the slide bar to value 224-255 to wait it cooling. Under these 2 circumstances, the lamp can not be turned on. The right operation is: turn it off---cool down---push the slide bar to turn it on.

LED INDICATION

	On	DMX signal OK
Green	Off	No DMX signal
	Flash	DMX signal error
Yellow	On	Setting the panel
Blue	On	Power
Red/Green	Red	Running self test mode
Neu/Gieen	Green	Reserved

MAINTENANCE

If the projector's lens becomes damaged or broken it should be replaced. If the lamp becomes damaged or deformed in any way it must be replaced. If the light from the lamp appears dim this would normally indicate that it is reaching the end of its life and it should be changed at once, aged lamps run to the extremity of their life might explode. If the projector does not function, check the fuses on the power socket of the projector, they should only be replaced by fuses of the same specification. Should these be damaged call a qualified technician before replacement. The projector has thermal protection device that will switch off the projector in case of overheating, should either of these operate, check that the fans are not blocked, and if they are dirty clean them before switching on the projector again. Check that the fans are operational, if not call a qualified technician.

Any maintenance work should only be carried out by qualified technicians.

LUBRICATION

To ensure the continuous rotation of the rotating gobos and linear motion of the lens for focusing, it is recommended that the bearings for the rotating gobos and the 2 shafts for the focusing lens holder be lubricated periodically, preferably every two months. Use only high quality, high-temperature resistant grease instead of any type of oil. When lubricating the bearings, a syringe with a fine needle is the easiest way to introduce the grease to the bearings around each gobo.

KEEPING THE PROJECTOR CLEAN

To ensure the reliability of the projector it should be kept clean. It is recommended that the fans should be cleaned every 15 days. The lens and dichroic colour filters should also be regularly cleaned to maintain an optimum light output. **Do NOT use any type of solvent on dichroic colour filters.**

Cleaning frequency depends on the environment in which the fixture operates: damp, smoke or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics. A soft cloth and typical glass cleaning products should be used in cleaning. It is recommended to clean the external optics at least once every 20 days and clean the internal optics at least once every 30 / 60 days.

Do not use any organic solvent, e.g. alcohol, to clean the reflector mirror, dichroic colour filters or housing of the apparatus.

TROUBLESHOOTING

PROBLEM	ACTION			
The projector doesn't switch on	Check the fuse on the power socket. Replace the lamp.			
The lamp comes on but the projector doesn't respond to the controller	Make sure that the projector is correctly configurated. Replace or repair the DMX cable.			
The projector only functions intermittently	Make sure the fan is working and not dirty.			
Defective projection	Check the lenses are not broken. Remove dust or grease from the lenses.			
The project image appears to have a halo	 Make sure the lamp is installed correctly. Carefully clean the optical group lenses and the projector components. 			
The beam appears dim	 Check the optics is clean. Replace with a new lamp of the specified type and rating. 			

TECHNICAL DATA

VOLTAGES:

Electronical ballast (PR-2910):	100V/120V/200V/220V/230V/240V AC, 50/60Hz		
Magnetic ballast (PR-2910M):	230V AC, 50/60Hz		
	Options: 200/220/240V AC, 50/60Hz		
POWER CONSUMPTION:			
Electronical ballast (PR-2910):	1500W@220V		
Magnetic ballast (PR-2910M):	1600W@220V		
LAMP:			
PHILIPS	MSR Gold 1200 SA/2 DE		
Colour Temperature	7500°K		
Socket	SFc10-4, double ended		
Manufacturers Rated Lamp Life	750 Hours replacement		
Or			
OSRAM	HMI 1200 W/S		
Colour Temperature	6000°K		
Socket	SFc10-4, double ended		
Manufacturers Rated Lamp Life	750 Hours replacement		

COLOURS:

Smooth CYM colour mixing system with macros 1 wheel with 6 dichroic colour filters plus white With variable speed bi-directional rainbow effect Step/linear colour changing is available

COLOUR TEMPERATURE CORRECTION:

Linearly colour temperature correction

GOBOS:

2 Rotating gobo wheels:

5 interchangeable gobos+ white, glass or metal gobos can be fixed Indexable, bi-directionally rotatable at variable speeds

1 Fixed gobo wheel :

7 interchangeable gobos+ white bi-directional wheel scrolling at variable speeds Gobo diameter: Φ36.3mm Gobo image diameter: Φ31.5mm

PRISM/ FROST:

1x linear lens, 1x3 facet prism, indexable, bi-directionally rotatable at variable speeds. linearly frost effect

Frost linearly adjustable 0-100%

EFFECT FILTERS:

1 interchangeable gobo effect wheel scrolling at variable speeds

FOCUS:

DMX controlled focus

DIMMER:

0-100% linearly adjustable

SHUTTER:

Double shutter blades, 0.3~12 F.P.S Macros

HEAD MOVEMENT:

Pan 450°, Tilt 270° with auto position correction

BEAM ANGLE:

 $12^\circ~{\sim}40^\circ$

CONTROL:

DMX512, 3 pin, 5 pin interfaces 24 channels in short mode, 29 channels in standard mode, and 37 channels in extended mode. Self-test mode

OTHER FUNCTIONS:

Adjustable Pan & Tilt speed Fixture and lamp usage time display LCD display with English and Chinese language menu Energy saving function of the ballast Built-in analyzer for easy fault finding, error messages Built-in demo sequences Setup options by chargeable battery inside without power connection. Input signal isolating protection Network interface (Reserved)

HOUSING:

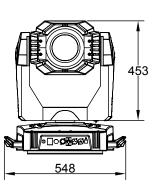
Composite plastic, IP20

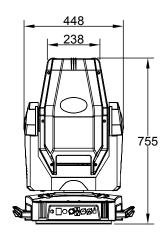
WEIGHT:

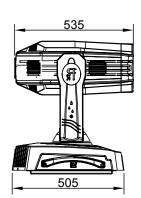
Electronical ballast (PR-2910):	35Kg
Magnetic ballast (PR-2910M):	47Kg

SIZES:

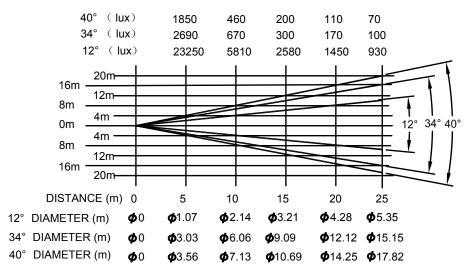
See at below

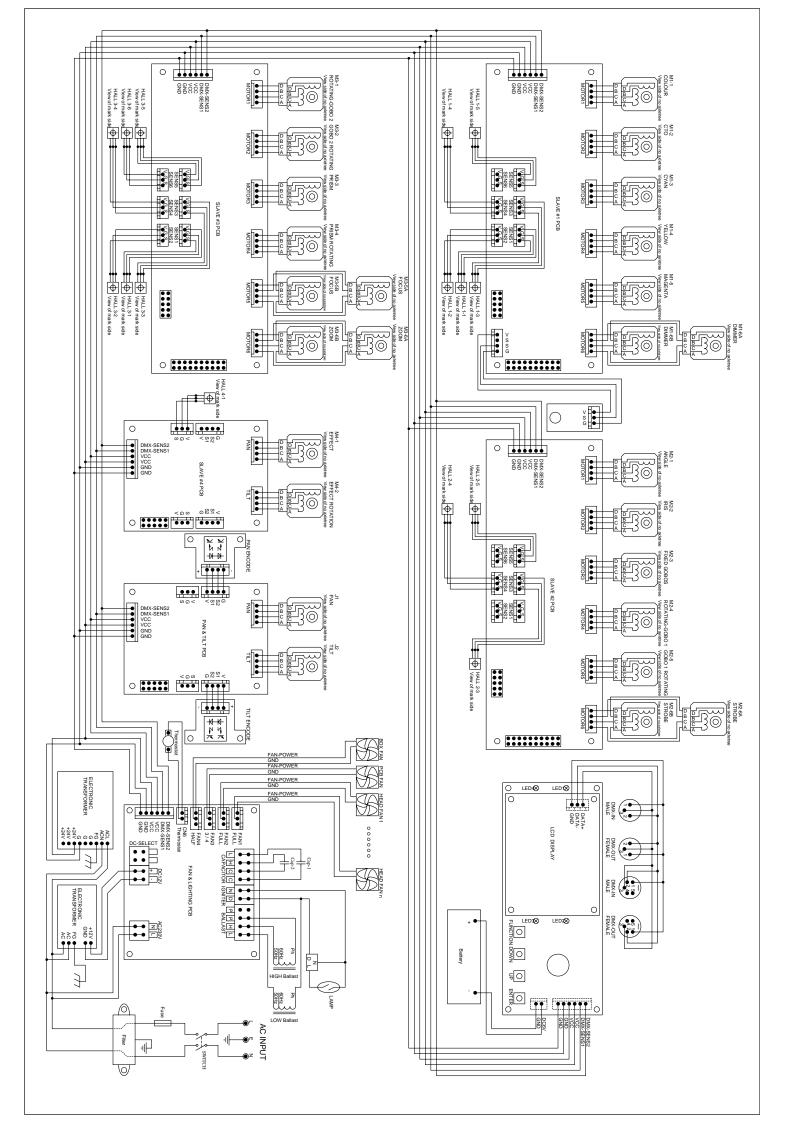


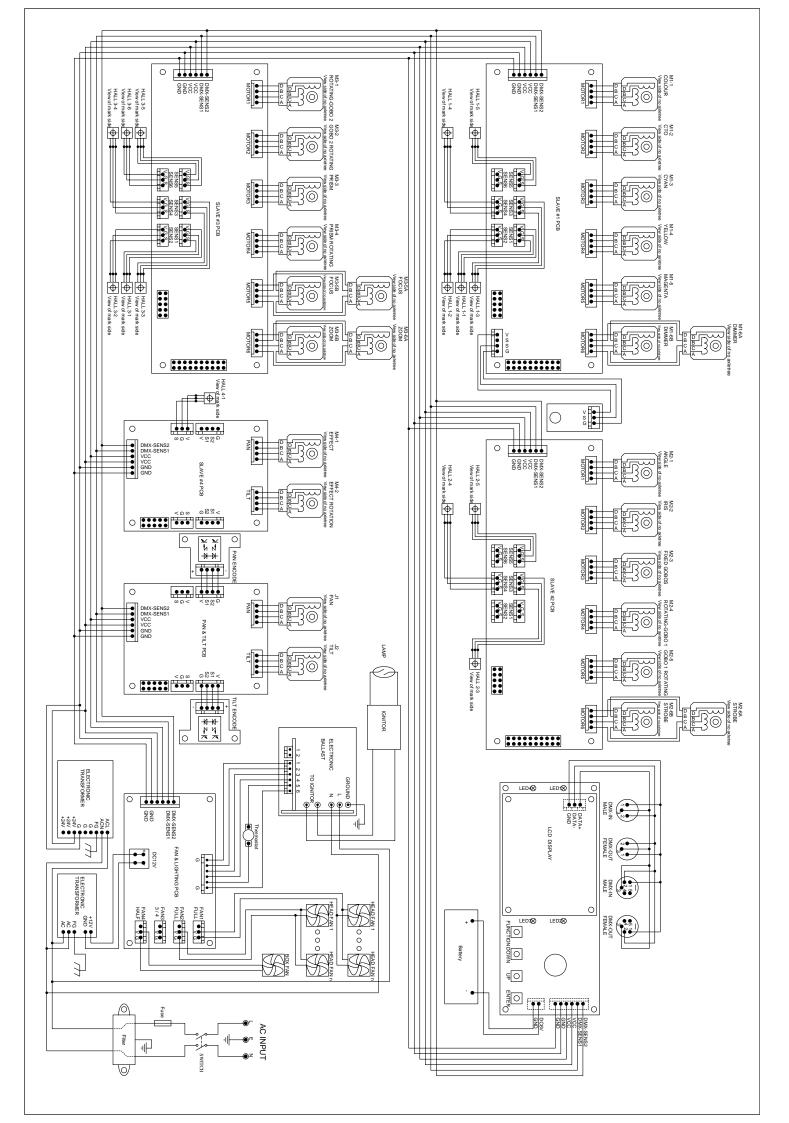




LIGHT OUTPUT:







COMPONENT ORDER CODES

NAME	PART NO.	QUANTITY	REMARK	
POWER SUPPLY	190010098	1	24V	
POWER SUPPLY	190010099	1	12V	
MAINS FILTER	193020008	1	20A 115/250VAC	
THERMOSTAT	190010074	1	150 ℃	
CAPACITOR****	140010043	2	70µF/370V	
BALLAST****	040070059	2	230V/50-60Hz, 575W	
BALLAST	040070079	1	1200W 90~264V AC	
IGNITOR****	040090045	1	575~1200W 6~8KV	
IGNITOR	040090043	1	575~1200W	
LAMP	100050064	1	MSR 1200 SA/2 DE	
TILT DRIVE BELT	290151241	1	HTD-750-3M	
PAN DRIVE BELT	290151234	1	HTD501-3M	
FAN IN BASE****		1		
FAN IN FRONT SIDE	030060001	2	- KD1208PTS1-6 DC12V/1.8W	
FAN IN BACK SIDE	030060036	2	DC12V 0.3A	
FAN ON THE COVER	030060047	3	DC12V 0.38A	
FAN NEAR THE CYM	030060051	2	KDE1205PFV1 11MS	
FAN NEAR THE POWER PCB****	030069003	1	DC12V/1.9W	
PAN MOTOR		1	23HS2039L 6.35*25	
TILT MOTOR	030040089	1	23HS2039L 6.35*25	
PRISM ROTATION MOTOR	030040131	1	16HY0002-02L 5*24	
ROTATING GOBO WHEEL 1 MOTOR		1		
ROTATING GOBO WHEEL 2 MOTOR	030040092	1	17HD0013-32L 5*7	
PRISM/FROST MOTOR	_	1		
DIMMER MOTOR	030040093	2	17HD0013-33L 5*35	
FOCUS MOTOR		2		
ZOOM MOTOR	030040073	2	- 17HS5003-03 5*20	
GOBO ROTATION 1 MOTOR	000040400	1		
GOBO ROTATION 2 MOTOR	030040132	1	- 17HD0013-31L 5*23	
CYMMOTOR		3		
CTO MOTOR	030040114	1	16HY7001-30L 5*40	
EFFECT WHEEL ROTATION MOTOR		1	1	
FIXED GOBO WHEEL MOTOR		1	16HS7002 5*17	
COLOUR WHEEL MOTOR	030040136	1		
ANGLE LENS MOTOR		1]	
SHUTTER BLADE MOTOR	030040116	1	16HY7001-32L 5*15	
	030040117	1	16HY7001-33L 5*9	
IRIS MOTOR	030040088	1	39BYG501-4A 5*24	
EFFECT WHEEL MOTOR	030040118	1	16HY7001-34L 5*12*10	
PAN/TILT DRIVE PCB	230020177	1		
MOTOR DRIVE PCB 1	230020178	1		
MOTOR DRIVE PCB 2	230020179	1		
MOTOR DRIVE PCB 3	230020180	1		
MOTOR DRIVE PCB 4	230020181	1		
DISPLAY PCB	230020220	1		
POWER PCB	230020183	1		
POWER PCB****	230020185	1		

NOTE:

**** Only apply to Magnetic ballast.

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