PURE RELIABILITY

SOLO 575P

PR-2586

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

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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	Pcs	3-pin plug
Safety cord	2	Pcs	
Spare gobos	4	Pcs	
This manual	1	Pcs	
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. 

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.

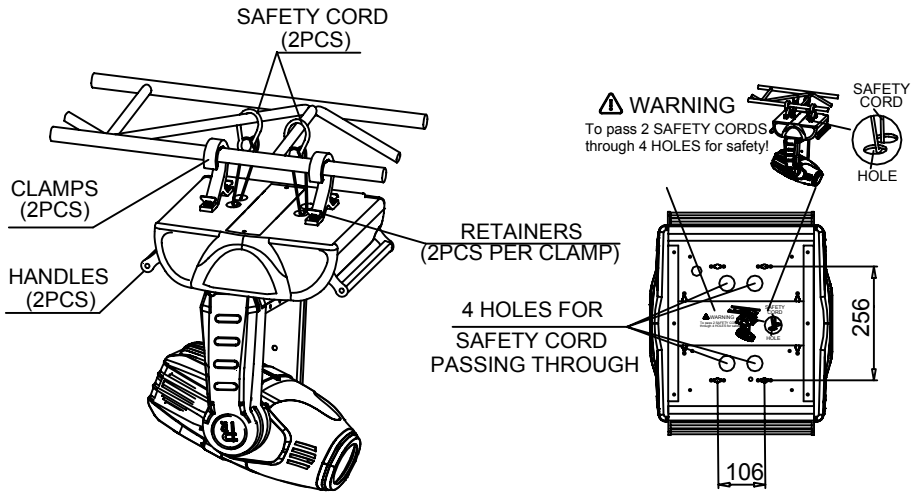
Never run the projector without a lamp.

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 SOLO 575P.

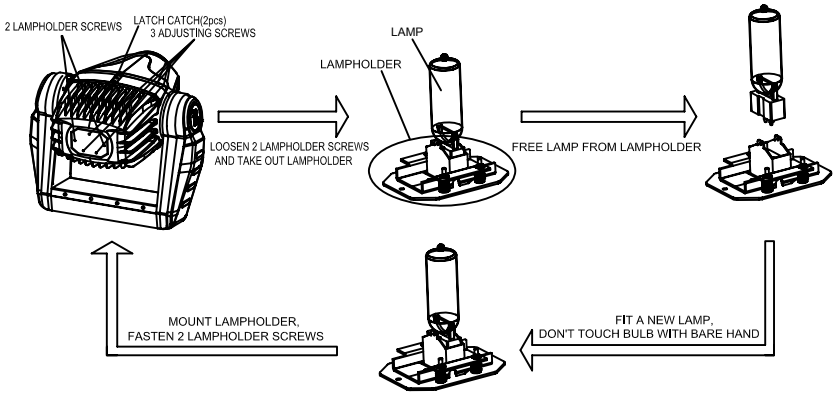
WARNING:

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.

FITTING THE LAMP



Lock tilt before fitting/replacing the lamp.

(Do the way as shown in the above figure)

Loosen 2 lampholder screws as shown in the above figure and take out the lampholder.

Free worn-out lamp from lampholder.

Fit a new lamp and insert it with lampholder into the fixture, then fasten 2 lampholder screws.

After the fitting is done, turn the projector on and 5 minutes later adjust 3 adjusting screws to focus for the best light output.

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

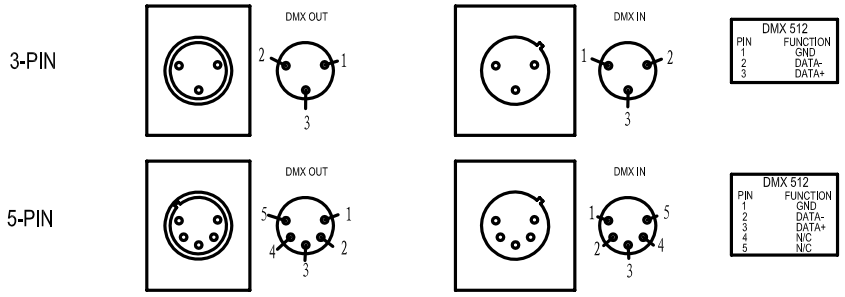
N (neutral) =blue

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.

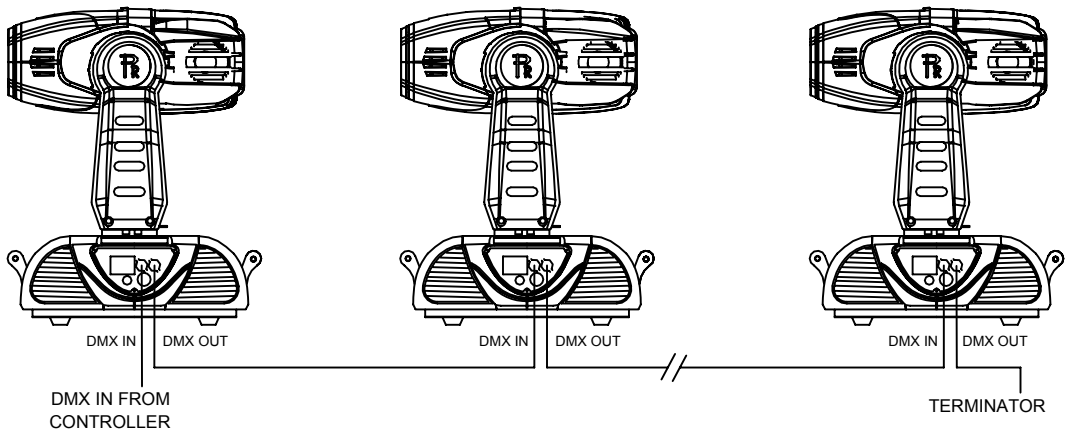
CONTROL CONNECTION



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.

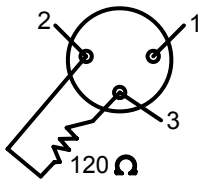
Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. The body of the plug is not connected in any way. The unit accepts digital control signals in protocol DMX512 (1990).

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.

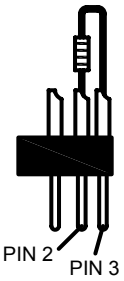


DMX TERMINATOR

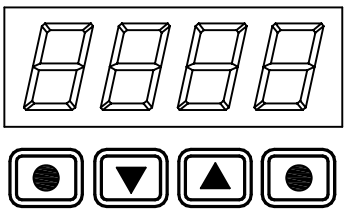
In the Controller mode, at the last fixture in the chain, the DMX output has to be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals.
The DMX terminator is simply an XLR connector with a 120Ω (ohm) resistor connected across pins 2 and 3, which is then plugged into the output socket on the last projector in the chain. The connections are illustrated below.



DMX TERMINATOR
CONNECTION
Connect a 120Ω(OHM) resistor across pins 2 and 3 in an XLR plug and insert into the DMX out socket on the last unit in the chain.



SETUP OPTIONS-PROJECTOR CONFIGURATION



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

Press button UP or DOWN if you want to browse through the various Setup Options.

Press button ENTER to save your settings or enter the next menu. Press button UP or DOWN to shift

the display between On and OFF or change the display of address.

Press button FUNC, it will return to the upper menu one by one. The display will return automatically to the function of address display if you stay for about 60 seconds defaulted.

TO SET THE DMX START ADDRESS

Each SOLO 575P 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 SOLO 575P have 16 channels, so set the No. 1 projector's address to 001, No. 2 projector's address to 017, No. 3 projector's address to 033, No. 4 projector's address to 049, and so on.

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

Press button FUNC to Addr;

Press button ENTER, it will display address;

Press button UP and DOWN, you can set the address;

Press button ENTER to confirm;

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

FUNCTIONS DISPLAY

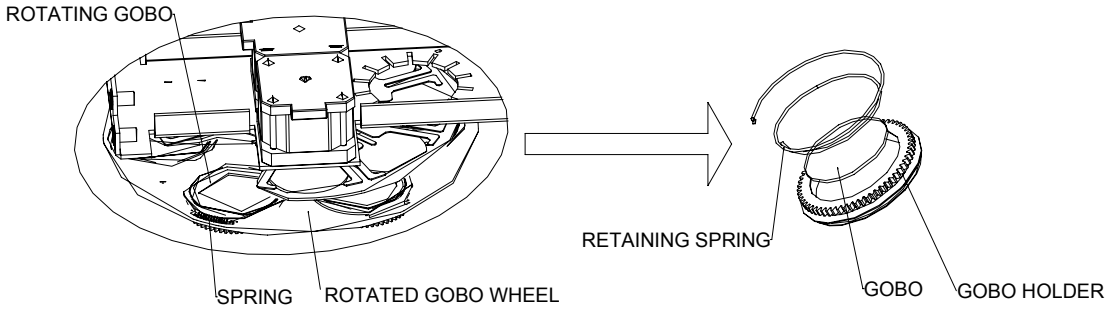
- AddR SET ADDR. (Default: 001)
  - 001 ADDR. 001
- RST RESET MENU
  - RST? RESET OR NOT
- CNFG CONFIG. MENU
  - HRES SET DMX EXT. CHANNEL (Default:ON)
    - ON DMX EXT. CHANNEL ENABLED
    - OFF DMX EXT. CHANNEL DISABLED
  - CTRL SET DMX CONTROL CHANNEL (Default:ON)
    - ON DMX CONTROL CHANNEL ENABLED
    - OFF DMX CONTROL CHANNEL DISABLED
  - LAMP SET LAMP CONTROL MODE (Default:CTRL)
    - CTRL BY CONTROL CHANNEL
    - ON BY LAMP MENU
    - dMX BY DMX SIGNAL EXISTING OR NOT
- OPTN OPTION MENU
  - COLR SET COLOUR FILTERS (Default:STEP)
    - STEP LINEAR ROTATION DISABLED
    - LIN LINEAR ROTATION ENABLED
  - P\IN SET ROTATION OF PAN (Default:OFF)
    - OFF FORWARD ROTATION
    - ON REVERSE ROTATION
  - T\IN SET ROTATION OF TILT (Default:OFF)
    - OFF FORWARD ROTATION
    - ON REVERSE ROTATION
  - PT\S SET PAN&TILT SWAP (Default:OFF)
    - OFF PAN&TILT SWAP OFF
    - ON PAN&TILT SWAP ON
  - d\IN SET DIMMER INVERT(Default:OFF)
    - OFF DIMMER INVERT OFF
    - ON DIMMER INVERT ON
  - Z\IN SET ZOOM INVERT (Default:OFF)
    - OFF ZOOM INVERT OFF
    - ON ZOOM INVERT ON
  - dFLT RESET (Default:OFF)
    - OFF DISABLED
    - ON ENABLED AND LOAD ALL DEFAULTS

(CONTINUE)

- dISP DISPLAY MENU(Default: ON)
  - d\Md LCD OF PANEL DISPLAY MODE
    - ON LCD IS ON
    - OFF LCD IS OFF AFTER DELAY
    - dIM LCD IS DARK
- INFO INFORMATION MENU
  - L\HR DISPLAY LAMP'S USING TIME OR SET TO 0
    - 0 DISPLAY LAMP'S USING TIME
      - RST? SET TO 0 OR NOT
  - T\HR DISPLAY PROJECTOR'S USING TIME (CANNOT RESET)
    - 0 DISPLAY PROJECTOR'S USING TIME
  - TEMP DISPLAY TEMPERATURE
    - MSTR DISPLAY MAIN PCB'S TEMPERATUER
      - 0
    - dRV1 DISPLAY DRIVER PCB Ⅰ'S TEMPERATURE
      - 0
    - dRV2 DISPLAY DRIVER PCB Ⅱ'S TEMPERATURE
      - 0
    - bASE DISPLAY PAN&TILT DRIVER PCB'S TEMPERATURE
      - 0
    - HEAd DISPLAY HEAD'S TEMPERATUER
      - N/A RESERVED
  - VER DISPLAY PROGRAM VERSION
    - MSTR DISPLAY MAIN PCB'S PROGRAM VER.
      - 0
    - dRV1 DISPLAY MOTOR DRIVER PCB Ⅰ'S PROGRAM VER.
      - 0
    - dRV2 DISPLAY MOTOR DRIVER PCB Ⅱ'S PROGRAM VER.
      - 0
    - P\T DISPLAY PAN&TILT DRIVER PCB'S PROGRAM VER.
      - 0
    - PWR DISPLAY POWER PCB'S PROGRAM VER.
      - 0
- TEST TEST MENU
  - SET DEBUG MODE (Default:OFF)
    - OFF EXIT DEBUG MODE AND RESET
    - ON ACCESS DEBUG MODE
  - SELF SELF TEST MODE (Default:OFF)
    - OFF EXIT SELF TEST MODE AND RESET
    - ON ACCESS SELF TEST MODE
- LAMP LAMP MENU（Default：STAT）
  - STAT DISPLAY STATE OF LAMP
  - ON ON
  - OFF OFF

(END)

REPLACING GOBOS



ROTATED GOBO WHEEL

Lock Tilt.

Free 2 latch catches on the cover and slip off the front cover. You could see the structure as shown in the above figure.

For gobos replacement on the rotated gobo wheel: take an appropriate tool to tug up spring and take out the rotating gobo with its holder; tug the head of retaining spring up and engage your another hand to take the retaining spring out; take the gobo out; fit a new gobo and fit the retaining spring; fit the gobo holder. Notes: the gobo cannot be touched with bare hand; Be careful of the gobo when the replacement is underway and don't drop it.

Close the front cover and fasten 2 latch catches.

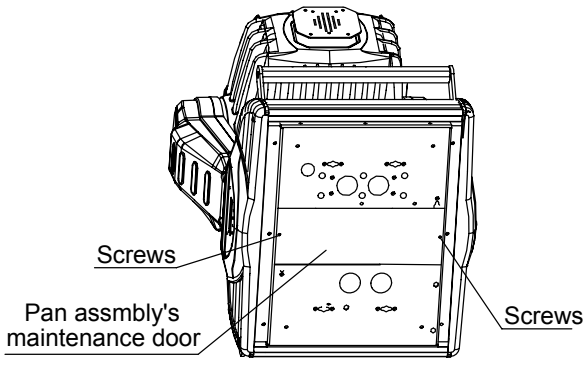
CHANGING BELTS

Pan's belts

Free 2 screws on Pan assembly's maintenance door and pull the door; change the belts; close the door and fasten the screws.

Tilt's belts

The common user replacing the belts is not recommended.



DMX PROTOCOL

Channel	Function	DMX Value	Description
1	Strobe	000-009	Blackout
		010-020	Open
		021-034	Strobe 1
		035-048	Strobe 2
		049-062	Strobe 3
		063-076	Strobe 4
		077-090	Strobe 5
		091-104	Strobe 6
		105-118	Strobe 7
		119-132	Strobe 8
		133-146	Strobe 9
		147-160	Strobe 10
		161-174	Strobe 11
		175-188	Strobe 12
		189-202	Strobe 13
		203-216	Strobe 14
		217-230	Strobe 15
		231-244	Strobe 16
		245-255	Open
2	Dimmer	000-255	0 to 100% dimming
3	Zoom	000-255	Zoom from small to large
4	Focus	000-255	Linear adjust
5	Pan rotation	000-255	Pan rotation from 0 to 540º
6	Tilt rotation	000-255	Tilt rotation from 0 to 270º
7	Colour Wheel	000-016	White. Note: stay 5 seconds while DMX value is 5, 6 or 7, the function reset perform
		017-024	White/colour filter 1
		025-032	Colour filter 1
		033-040	Colour filter 1/colour filter 2
		041-048	Colour filter 2
		049-056	Colour filter 2/colour filter 3
		057-064	Colour filter 3
		065-072	Colour filter 3/colour filter 4
		073-080	Colour filter 4
		081-088	Colour filter 4/colour filter 5
		089-096	Colour filter 5

		097-104	Colour filter 5/colour filter 6
		105-112	Colour filter 6
		113-120	Colour filter 6/white
		121-127	White
		128-133	Rotation speed 1 (slowest)
		134-139	Rotation speed 2
		140-145	Rotation speed 3
		146-151	Rotation speed 4
		152-157	Rotation speed 5
		158-163	Rotation speed 6
		164-169	Rotation speed 7
		170-175	Rotation speed 8
		176-181	Rotation speed 9
		182-187	Rotation speed 10 (fastest)
		188-195	Stop rotating
		196-201	Reverse rotation speed 1 (slowest)
		202-207	Reverse rotation speed 2
		208-213	Reverse rotation speed 3
		214-219	Reverse rotation speed 4
		220-225	Reverse rotation speed 5
		226-231	Reverse rotation speed 6
		232-237	Reverse rotation speed 7
		238-243	Reverse rotation speed 8
		244-249	Reverse rotation speed 9
		250-255	Reverse rotation speed 10 (fastest)
8	Rotating Gobo Wheel	000-043	Clear
		044-085	Gobo 1
		086-128	Gobo 2
		129-170	Gobo 3
		171-212	Gobo 4
		213-255	Gobo 5
9	Gobo Rotation	000-120	0~540º 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)
		184-191	stop rotating
		192-199	Reverse rotation speed 8(fastest)
		200-207	Reverse rotation speed 7
		208-215	Reverse rotation speed 6
		216-223	Reverse rotation speed 5

		224-231	Reverse rotation speed 4
		232-239	Reverse rotation speed 3
		240-247	Reverse rotation speed 2
		248-255	Reverse rotation speed 1 (slowest)
10	Prism Wheel	000-051	White
		052-102	Prism 1
		103-153	Prism 2
		154-204	CTO
		205-255	Frost
11	Prism Rotation	000-120	0~540º index
		121-127	Rotation speed 1
		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
		184-191	stop rotating
		192-199	Reverse rotation speed 8
		200-207	Reverse rotation speed 7
		208-215	Reverse rotation speed 6
		216-223	Reverse rotation speed 5
		224-231	Reverse rotation speed 4
		232-239	Reverse rotation speed 3
		240-247	Reverse rotation speed 2
		248-255	Reverse rotation speed 1
12	Pan & Tilt Speed	000-255	Adjust Pan&Tilt speed
13	Pan Fine (16Bit)（ext. channel）	000-255	Adjust Pan in 16Bit resolution
14	Tilt Fine (16Bit) （ext. channel）	000-255	Adjust Tilt in 16Bit resolution
15	Gobo Rotation Fine （ext. channel）	000-255	Adjust gobo rotation in 16Bit resolution
16	Control (when ext. channels disabled, this channel performed by channel 12)	000-048	Reserve
		049-080	Reset
		081-112	Reserve
		113-144	Turn lamp off（stay 10 seconds）
		145-223	Reserve
		224-255	Turn lamp on（see remark below）

Remark:

If you intend to turn on/off the lamp via the 16th channel of the controller, don't attempt to push the fader of 16th channel to value 224-255 immediately after turning it off, or push the fader 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 fader to turn it on.

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:
100/120/200/220/230/240V AC, 50Hz or 60Hz to order

POWER CONSUMPTION:
650W@220V

LAMP:

PHILIPS	MSR 575/2
Colour Temperature	7200°K
Socket	GX9.5, single ended
Manufacturers Rated Lamp Life	1000 Hours replacement

COLOURS:
1 colour wheel
6 dichroic colours plus white
Adjustable speed with rainbow effect at variable speeds

GOBOS:
1 Rotating gobo wheel:
5 interchangeable gobos+ white
Indexable, bi-directionally rotatable 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.
1xFrost, 1xCTO

FOCUS:
DMX controlled focus

DIMMER:
0-100% linearly adjustable

SHUTTER:
Double shutter blades, 0.3~12 F.P.S

HEAD MOVEMENT:
Pan 540º, Tilt 270º with auto position correction

BEAM ANGLE:

14° ～27° , linearly adjustable

CONTROL:

DMX512, 3 pin interfaces
16 channels

HOUSING:

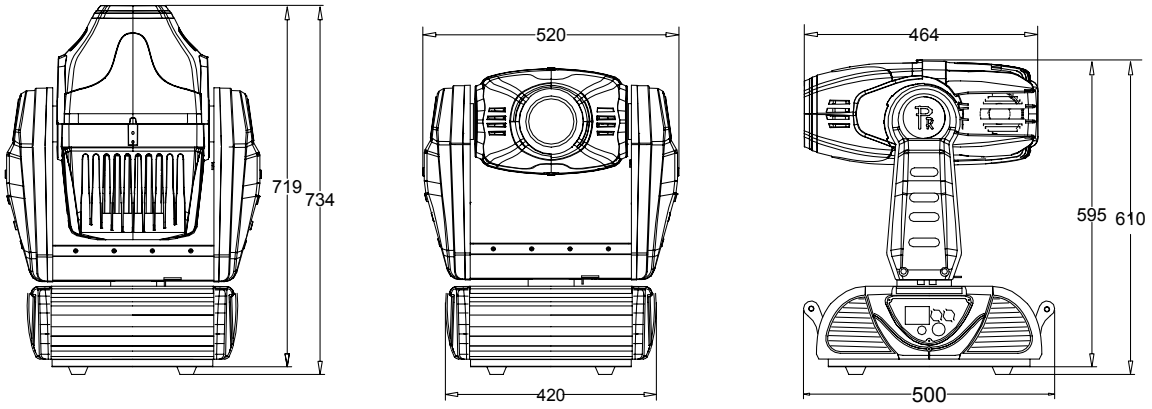
Composite plastic, IP20

WEIGHT:

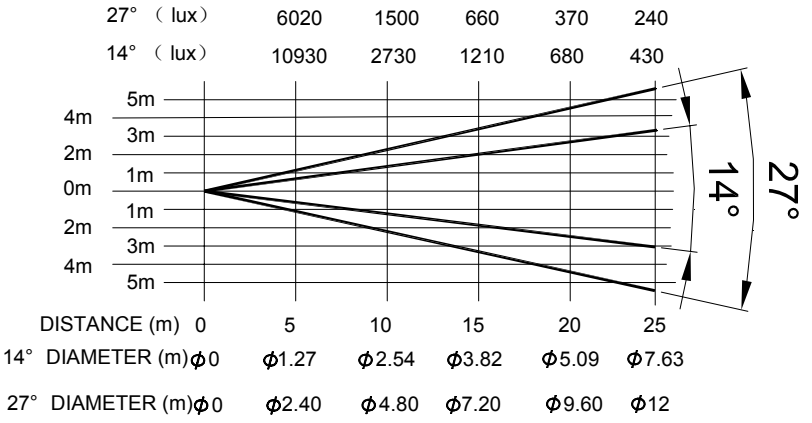
200/220/230/240V:	33Kg
100/120V：	36Kg

SIZES:

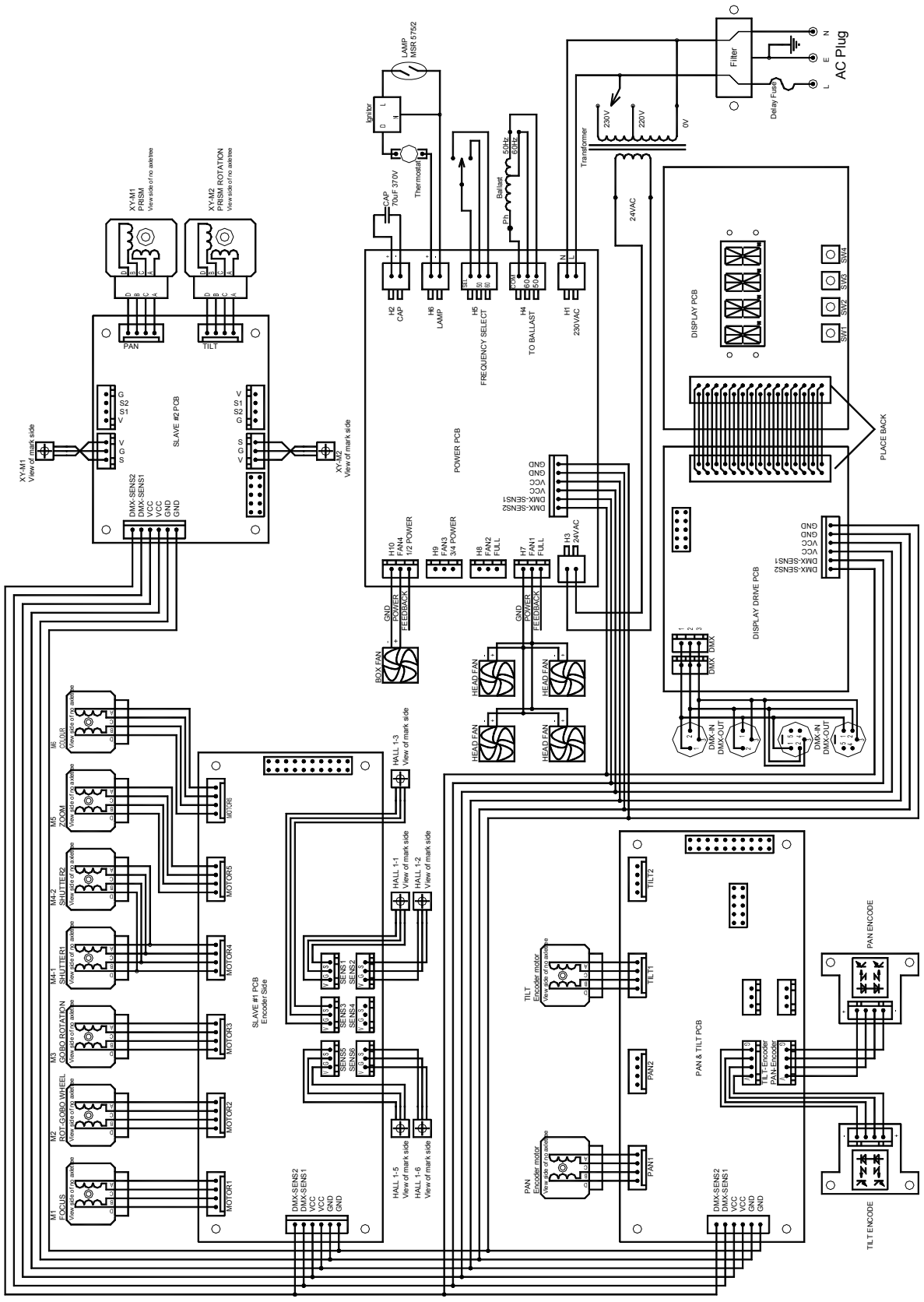
See at below



LIGHT OUTPUT:



ELECTRICAL DIAGRAM



COMPONENT ORDER CODES

NAME	PART NO.	QUANTITY	REMARK
TRANSFORMER	040030053	1	220/230V
	040030052	1	100/120V
THERMOSTAT	190010035	1	KSD020 120℃/15A/250V
CAPACITOR	140010043	1	70μF/370V
BALLAST	040070059	1	230V/50-60Hz, 575W
IGNITOR	040090035	1	575~1200W 3~5KV
MAINS FILTER	193020005	1	20A/250V
FUSE	270041054	1	65TS 10A/250V 6.35*30
LAMP	100050058	1	MSR 575W/2
PAN&TILT DRIVE BELT	290151221	2	HTD459-3M-6
FANS (SUNNO)	030060035	3	KD2409PTB1 24VDC/1.9W
FANS (SUNNO)	030069005	2	KD2406PTS1 24VDC\1.4W
PAN MOTOR	030040127	1	57BYGH601-1
TILT MOTOR		1	
ZOOM & FOCUS MOTOR	030040084	2	17HS0002-59L 5*28
STROBE MOTOR	030040125	2	42BYGH016-11A 5*20
ROTATING GOBO WHEEL MOTOR		1	
GOBO ROTATION MOTOR	030040112	1	14HD0013-38L 5*15
COLOR WHEEL MOTOR		1	
ROTATING PRISM MOTOR	030040122	1	42BYGH016-14A 5*7
PRISM ROTATION MOTOR	030040133	1	42BYGH107-1 5*23
PAN & TILT DRIVER PCB	230020091	1	
MOTOR DRIVER PCB 1	230020128	1	
MOTOR DRIVER PCB 2	230020129	1	
DISPLAY DRIVER PCB	230020096	1	
MAIN PCB	230020127	1	
POWER PCB	230020098	1	

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