



PILOT 1200

PR-2900

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.

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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

- G clamps (2 PCS)
- XLR cable with 3-pin plug and socket (1 PCS)
- Safety cord (2 PCS)
- Spare gobos (4 PCS)
- This manual (1 PCS)

clamps(Options)(2PCS)

INTRODUCTION

Thank you for purchasing our product PILOT 1200, PR-2900.

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.


PILOT 1200 is an innovative projector with an elegant housing, which complies to CE norms and standards and uses international protocol DMX 512.

The projector uses HMI1200W/S discharge lamp and high quality optical system, which produces bright and beautiful light beam and has 60% output lumen more than the similar products with the same power consumption. The projector features effects of strobe, frost light, mixed colours and rainbow, so it is suitable for applications in TV station, disc, singing and dancing stage, nightclub, etc.

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. 

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 an HMI1200W/S 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.

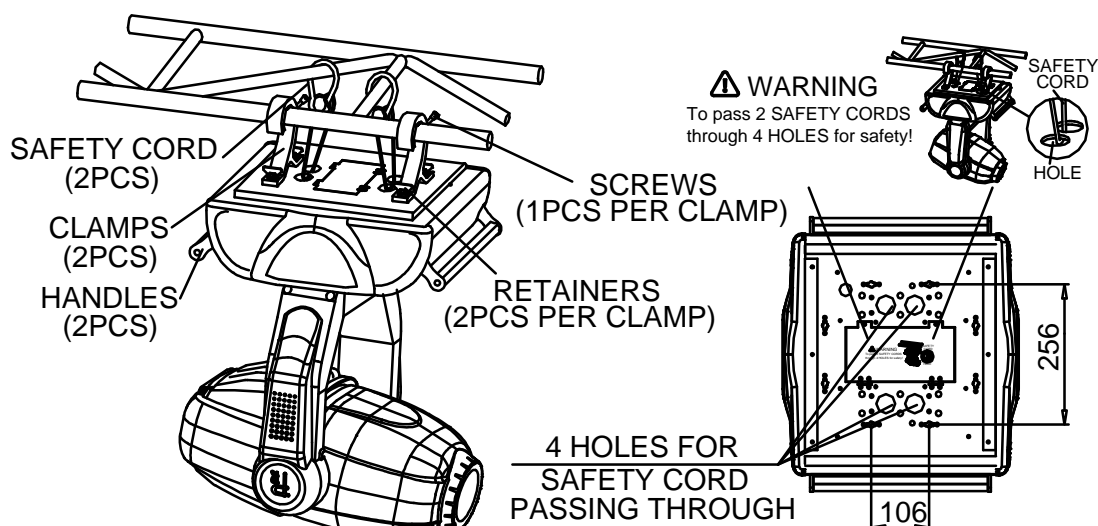
Never run the projector without a lamp.

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.

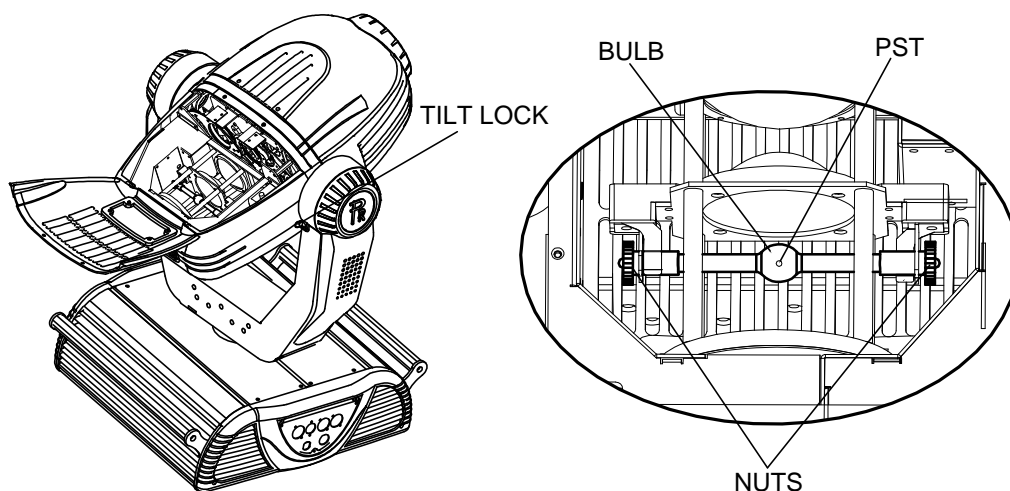
INSTALLING THE PROJECTOR



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. (Watch 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 PILOT 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.

FITTING THE LAMP



Lock tilt before fitting/replacing the lamp.

Loosen 2 M5 screws and open one of the rear 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 worn-out lamp. Suggest to free one end after another.

Fit new lamp and fasten 2 nuts at the both ends of lamp. Notes: 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 2 M5 screws.

WARNING: The HMI 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:

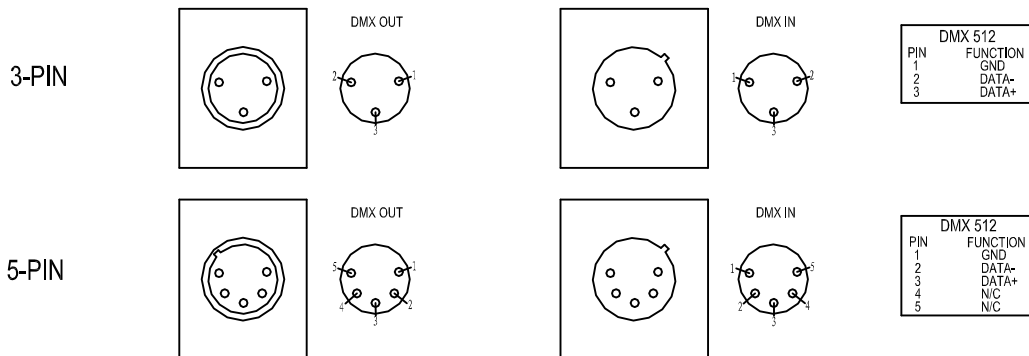
- L (live) =brown
- E (earth) =yellow/green
- N (neutral) =blue

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. Power consumption of the PILOT 1200 is 1628W.

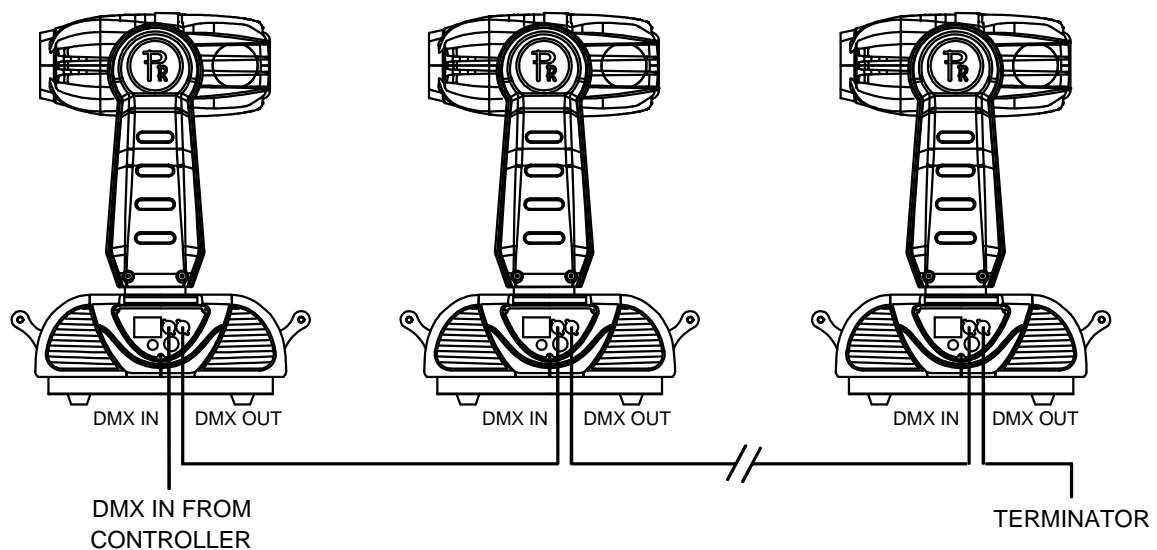
CONTROL CONNECTIONS



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.

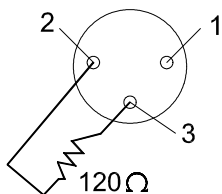
Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. The body of the plug is not connected in any way. The PILOT 1200 accepts digital control signals in protocol DMX512 (1990).

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.



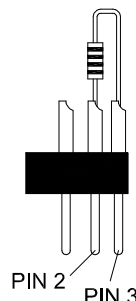
DMX TERMINATOR

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.

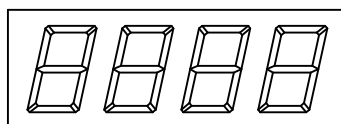


DMX TERMINATOR CONNECTION

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



FUNC DOWN UP ENTER

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.

E.g. if you want to set the function of Pan, Tilt 16bit precision valid, do as follows: launch the apparatus; press button **FUNC** to **Addr** which is displayed in digital display; press button **UP** to **Optn**; press button **ENTER**, it will display **InuP**; press button **UP** consecutively to **HrES**; press button **ENTER**, it will display **OFF**; press button **ON** to **On**; in the end, press button **ENTER**. Well done, you have validated this function now.

If you want to set the function of Pan, Tilt 16bit precision invalid, press button **DOWN** to **OFF**; Then press button **ENTER** to invalidate this function.

And, if you want to set another function valid or not, press button **FUNC** to track back one by one; then, do the same way of e.g. above.

TO SET THE DMX START ADDRESS

Each PILOT 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 PILOT 1200 has 22 channels, so set the No. 1 projector's address 001, No. 2 projector's address 023, No. 3 projector's address 045, No. 4 projector's address 067, and so on.

Launch the projector. Press button **FUNC** to **Addr**; press button **ENTER**, it will display **0000**; press button **UP** and **DOWN**, you can set the address; press button **ENTER** to confirm.

FUNCTIONS DISPLAY


	DISPLAY ADDR.
	SET ADDR.
	ADDR. 001
	PAN ANTI-CLOCKWISE ROTATION SWITCH
	OFF
	ON
	TILT ANTI-CLOCKWISE ROTATION SWITCH
	OFF
	ON
	PAN/TILT 16 BIT PRECISION SWITCH
	OFF
	ON
	CODER SWITCH(PHOTOCOUPLER POSITIONING)
	OFF
	ON
	COLOUR FILTER LINEAR SWITCH
	OFF
	ON
	FIXED GOBO WHEEL LINEAR SWITCH
	OFF
	ON
	LAMP SWITCH (RESERVED)
	OFF
	ON
	(RESERVED)
	OFF
	ON
	SLAVE IN MASTER/SLAVE MODE (RESERVED)
	OFF
	ON
	MASTER MODE 1 (RESERVED)
	OFF
	ON

(CONTINUE)

 MASTER MODE 2 (RESERVED)

 OFF

 ON

 MASTER MODE 3 (RESERVED)

 OFF

 ON


 MASTER MODE 4 (RESERVED)

 OFF

 ON

 DISPLAY TIME

 HOUR

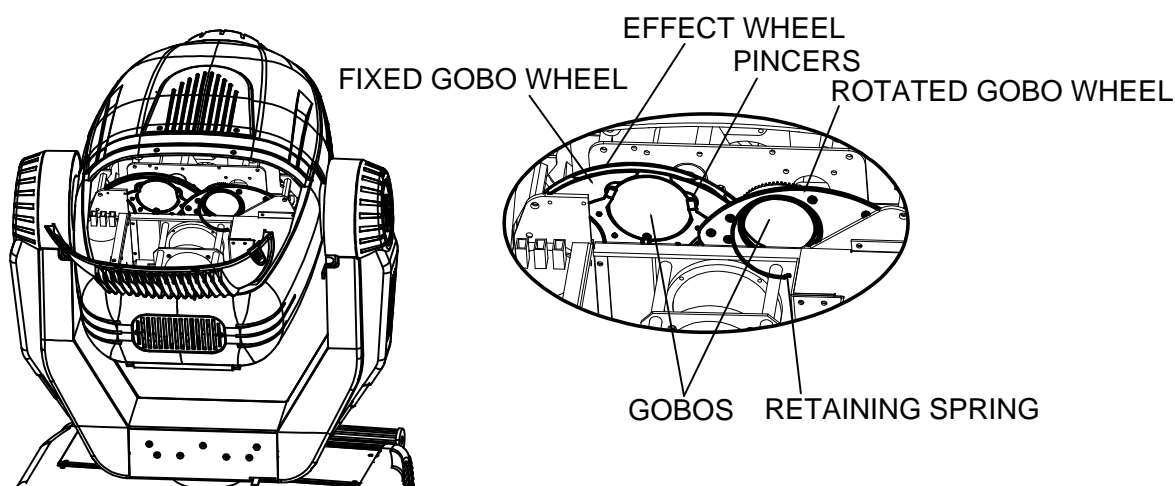
 eg. "H001" MEANS 1 HOUR

ERRORS DISPLAY

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

INFORMATION	ERRORS
Er02	Sensor 1 temperature too high
Er04	Lamp error
Er05	EEPROM error
Er06	Sensor 2 temperature too high
Er09	Gobo rotation reset error
Er10	Gobo change reset error
Er11	Effect wheel reset error
Er12	Colour wheel reset error
Er17	Prism rotation reset error
Er18	Prism change reset error
Er20	Fixed gobos reset error
Er25	Pan motor reset error
Er26	Tilt motor reset error

REPLACING GOBOS



Lock Tilt. Loosen 2 screws on the rear cover with fans and open the rear cover with fans. You could see the structure as shown in the above figure.

For gobos replacement on the fixed gobo wheel: turn the effect wheel and rotated gobo wheel to a proper position first; take out a gobo from the fixed gobo wheel carefully; fit a new gobo. 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.

For filters replacement on the effect wheel: do in the same way of fixed gobo wheel.

For gobos replacement on the rotated gobo wheel: take an appropriate tool to 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. Notes: the gobo cannot be touched with bare hand; never attempt to dismantle the gobo holder on which you want to replace the gobo; be careful of the gobo when the replacement is underway and don't drop it.

Close the rear cover and fasten 2 M5 screws.

DMX CONTROL CHANNEL FUNCTIONS

The PILOT 1200 uses 22 DMX channels. They are listed in the following table.

CHANNEL	DMX	DESCRIPTION
1 Strobe	000-009	Shuttering
	010-024	White
	025-039	Strobe 1 (slowest)
	040-054	Strobe 2
	055-069	Strobe 3
	070-084	Strobe 4
	085-099	Strobe 5
	100-114	Strobe 6
	115-129	Strobe 7
	130-144	Strobe 8
	145-159	Strobe 9
	160-174	Strobe 10
	175-189	Strobe 11
	190-204	Strobe 12
	205-219	Strobe 13
	220-234	Strobe 14
	235-249	Strobe 15 (fastest)
	250-255	White
2 Dimmer	000-024	White
	025-255	Dimming from light to dark (0-100%)
3 Iris	000-255	Linearly adjust iris from large to small (0=wholly open; 100=wholly closed)
4 Fixed Gobo	000-031	White
	032-063	Gobo 1
	064-095	Gobo 2
	096-127	Gobo 3
	128-159	Gobo 4
	160-167	Rotation speed 1 (slowest)
	168-175	Rotation speed 2
	176-183	Rotation speed 3
	184-191	Rotation speed 4 (fastest)
	192-223	Stop rotating
	224-231	Reverse rotation speed 1 (slowest)
	232-239	Reverse rotation speed 2
	240-247	Reverse rotation speed 3
	248-255	Reverse rotation speed 4 (fastest)
5 Pan	000-255	Pan rotation
6 Tilt	000-255	Tilt rotation
7 Focus	000-255	Linearly focusing
8 Zoom	000-255	Zooming with spot from large to small
9 Colour Wheel	000-024	White. Note: stay 5 seconds while DMX value is 5, 6 or 7, the function reset perform
	025-030	White/colour filter 1
	031-036	Colour filter 1
	037-042	Colour filter 1/colour filter 2
	043-048	Colour filter 2
	049-054	Colour filter 2/colour filter 3
	055-060	Colour filter 3
	061-065	Colour filter 3/colour filter 4
	066-071	Colour filter 4
	072-077	Colour filter 4/colour filter 5
	078-083	Colour filter 5

	084-089	Colour filter 5/colour filter 6
	090-095	Colour filter 6
	096-101	Colour filter 6/colour filter 7
	102-107	Colour filter 7
	108-113	Colour filter 7/white
	114-121	Rotation speed 1 (fastest)
	122-129	Rotation speed 2
	130-137	Rotation speed 3
	138-145	Rotation speed 4
	146-153	Rotation speed 5
	154-161	Rotation speed 6
	162-169	Rotation speed 7
	170-177	Rotation speed 8 (slowest)
	178-191	Stop rotating
	192-199	Reverse rotation speed 8 (slowest)
	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 (fastest)
10 CYM-Cyan	000-255	Cyan (0-100%)
11 CYM-Yellow	000-255	Yellow (0-100%)
12 CYM-Magenta	000-255	Magenta (0-100%)
13 Rotating Gobo	000-050	White
	051-101	Gobo 1
	102-152	Gobo 2
	153-203	Gobo 3
	204-255	Gobo 4
14 Gobo Rotation	000-119	Gobo index (0~540 °)
	120-127	Rotation speed 1 (fastest)
	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 (slowest)
	184-191	Stop rotating
	192-199	Reverse rotation speed 8 (slowest)
	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 (fastest)
15 Prism	000-050	White
	051-101	Prism 1
	102-152	Prism 2
	153-203	Prism 3
	204-255	Prism 4
16 Prism Rotation	000-119	Index (0~540 °)
	120-127	Rotation speed 1 (fastest)
	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 (slowest)
	184-191	Stop rotating
	192-199	Reverse rotation speed 8 (slowest)
	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 (fastest)
17 Effects Wheel	000-050	White
	051-101	Effect 1
	102-152	Effect 2
	153-203	Effect 3
	204-255	Effect 4
18 Frost	000-255	Frosting from slight to strong (0~100%)
19 Pan & Tilt Speed	000-255	Pan&Tilt speed adjustable by steps from fast to slow
20 Pan Fine	000-255	Pan rotation in 16 Bit precision
21 Tilt Fine	000-255	Tilt rotation in 16 Bit precision
22 Control	000-170	Lamp ON
	171-255	Lamp OFF after 10 seconds or over

LED DISPLAY

Green: ON——DMX signal OK or Slave;
OFF——No DMX signal;
Flash——DMX error;

Red: Medium flash——Menu mode;
Fast flash——software, cpu error;

Both ON: Address mode,
Flash in turn: Master mode.

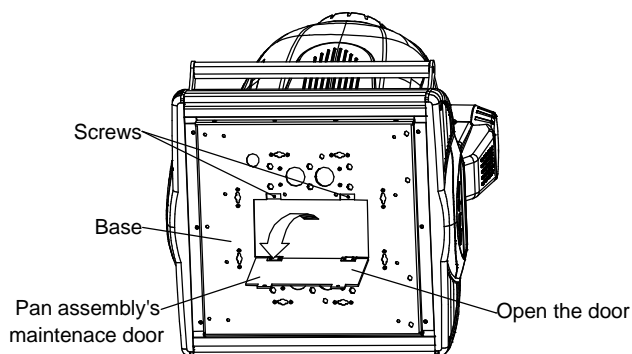
CHANGING BELTS

Pan's belts

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

Tilt's belts

The common users replacing the belts is not recommended.



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 6.35X32 T15A/250V. On the PCBs inside the projector there are also 3 fuses. They are 2 fuses 6.3A / 250V (fast blow , 5mmx20mm) on both Pan PCB and Tilt PCB, 1 fuse 4A / 250V (fast blow , 5mmx20mm) on driver PCB. 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.**

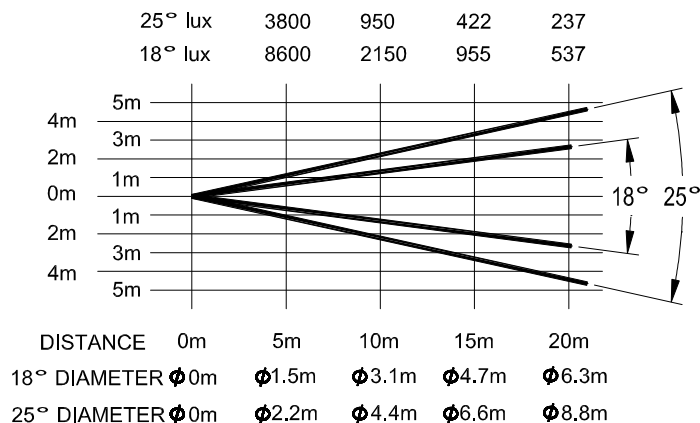
Cleaning frequency depends on the environment in which the fixture operates: damp, smoke or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics. A soft cloth and typical glass cleaning products should be used in cleaning. It is recommended to clean the external 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	POSSIBLE CAUSE	ACTION
The projector doesn't switch on	-The power supply is not present -The lamp doesn't work	Check the fuse on the power socket. Replace the lamp.
The lamp comes on but the projector doesn't respond to the controller	-Wrong DMX configuration and/or start address - Defective DMX cable	Make sure that the projector is correctly configured. Replace or repair the DMX cable.
The projector only functions intermittently	-The fan has failed	Make sure the fan is working and not dirty.
Defective projection	-The lens is broken -Dust or grease on lenses	Check the lenses are not broken. Remove dust or grease from the lenses.
The projected image appears to have a halo	-Installation of the lamp is not correct -Dust or grease contamination on the optics.	Make sure the lamp is installed correctly. Carefully clean the optical group lenses and the projector components.
The beam appears dim	-Dust or grease contamination on the optics. -The lamp is at the end of its life	Check the optics is clean. Replace with a new lamp of the specified type and rating.

LIGHT OUTPUT



TECHNICAL DATA

VOLTAGES:

200/220/230/240V AC, 50Hz or 60Hz

POWER CONSUMPTION:

1628W @230V

LAMP:

Type: MSR 1200W SA/DE discharge lamp

Colour Temperature: 6000°K

Socket: SFC10-4

Manufacturers Rated Lamp Life: 750 Hours

COLOURS:

CYM colour mixing system

1 wheel with 7 fixed Dichroic colours plus white

With variable speed bidirectional rainbow effect

COLOUR TEMPERATURE CORRECTION:

2 colour temperature correction filters

GOBOS:

Rotating gobo wheel

4 interchangeable gobos+white, indexable, bidirectionally rotating at variable speeds.

Fixed gobo wheel

4 interchangeable gobos+white, the fixed gobo wheel can scroll in either direction at variable speeds.

Both glass gobos and metal gobos may be fitted to either wheel.

Gobo diameter: \varnothing 51.8mm

Gobo image diameter: \varnothing 48mm

PRISM:

1x2 facet, 1 x 3 facet, 1x5 facet, 1 x linear prisms, indexable, bidirectionally rotating at variable speeds

FOCUS:

DMX controlled focus

EFFECT FILTERS:

1 ultraviolet filter and 1 bicolour filter

FROST:

Variable frost effect, 0-100% linearly adjustable

SHUTTER:

Double shutter blades, 0-100% linearly adjustable

STROBE:

1 – 7 F.P.S.

HEAD MOVEMENT:

Pan 540°, Tilt 270°

BEAM ANGLE:

18°--25° linear zoom

CONTROL:

DMX512, 20 channels plus 2 channels for high resolution Pan and Tilt

OTHER FUNCTIONS:

Adjustable Pan & Tilt speed, Projector usage time display, lamp time display.

HOUSING:

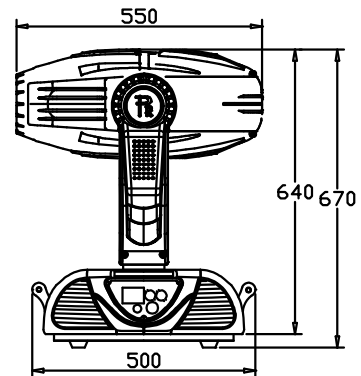
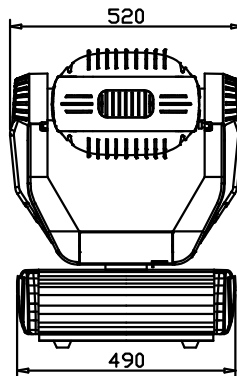
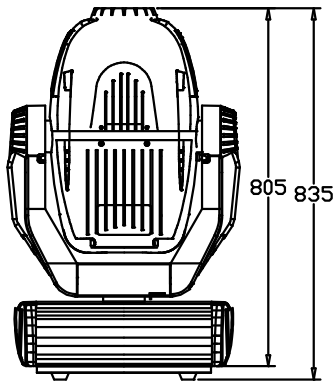
Metal and composite plastic (IP20)

WEIGHT:

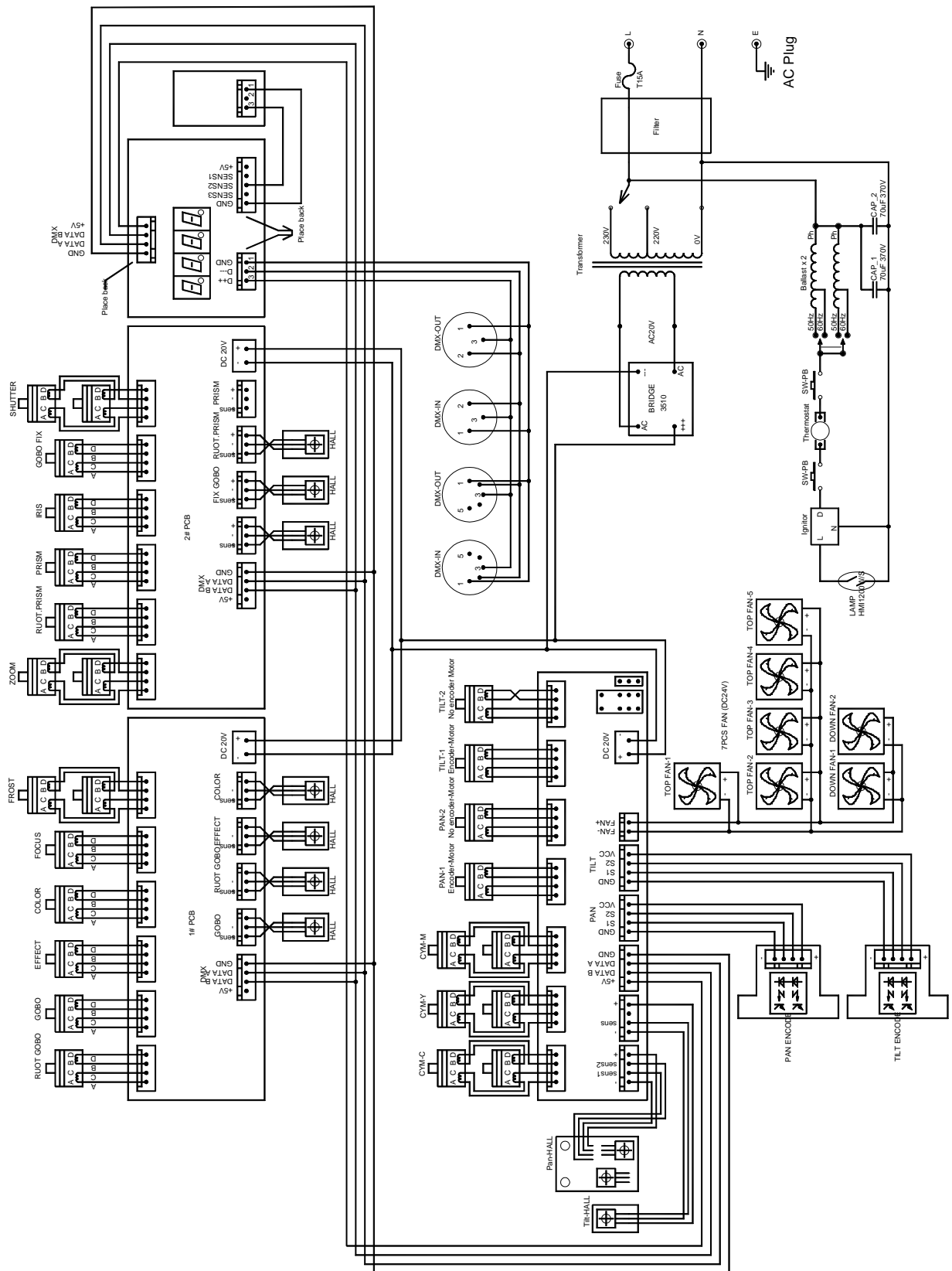
54Kg.

SIZES:

See Drawings



ELECTRICAL DIAGRAM



COMPONENT ORDER CODES

NAME	PART NO.	REMARK
TRANSFORMER	040030054	200/240V
	040030056	220/230V
THERMOSTAT	190010035	KSD020 120/15A/250V
CAPACITOR	140010043	70 μ F/370V
BALLAST	040070059	230V/50-60Hz, 575W
IGNITOR	040090036	575~1200W 6~8KV
LAMP	100050054	MSR 1200W SA/DE
PAN&TILT DRIVE BELT1, 2, 3,4	290151221	HTD459-3M-6
"O" Belt	290151302	\varnothing 100x3.1
FANS		
FAN1,2 in strobe (SUNNO)	030060031	KDE2408PTB1-6 24VDC\3.4W
FAN3 in strobe (SUNNO)	030069005	KD2406PTS1 DC24V\2.6W
FAN4,5 on the rear cover	030060039	NMB BG0903-B054- 000-T0
FAN6,7 in base (SUNNO)	030060035	KD2409PTB1-6 24VDC
MOTORS		
MOTOR 1,2 (PAN)	030040089	23HS2039L
MOTOR 3,4 (TILT)	030040068	23HS0001-07L
MOTOR 5,6 (SHUTTER BLADE)	030040085	17HS0002-61L
MOTOR 7 (PRISM)	030040085	17HS0002-61L
MOTOR 8 (PRISM)	030060099	17HS0002-62L
MOTOR 9 (PRISM ROTATION)	030040085	17HS0002-61L
MOTOR 10 (FIXED GOBO WHEEL)	030060098	17HS0002-63L
MOTOR 11 (COLOUR WHEEL)	030040084	17HS0002-59L
MOTOR 12 (ROTATING GOBO WHEEL)	030040098	17HS0002-63L
MOTOR 13 (GOBO ROTATION)	030040084	17HS0002-59L
MOTOR 14 (FOCUS)	030040083	17HS0002-60L
MOTOR 15 (EFFECT WHEEL)	030040083	17HS0002-60L
MOTOR 16,17 (ZOOM)	030040083	17HS0002-60L
MOTOR 18,19 (FROST)	030040060	16HY0002-02L
MOTOR 20,21 (CYM-YELLOW)	030040061	16HY0002-03L
MOTOR 22,23 (CYM-CYAN)	030040060	16HY0002-02L
MOTOR 24,25 (CYM-MAGENTA)	030040061	16HY0002-03L
CHIPS		
IC1, 2, 3 (NJM3771D2 或 PBL3771)	170110004	Pan & Tilt driver PCB
IC4, 5, 6, 7 (NJM3772D2)	170110019	
IC8 (MB88346B)	170170056	
IC9 (CM2576/5V)	170170057	
IC10 (MAIN CPU)	230040161	
IC11 (MINOR CPU)	230040162	
IC12, 13, 14, 15, 16, 17 (NJM3771D2 或 PBL3771)	170110004	Motor driver PCB Motor driver PCB
IC18 (LM2574N-5)	170170039	
IC19 (MB88346B)	170170056	
IC20 (CPU)	230040163	Digital PCB
IC21 (CPU)	230040159	
IC22 (MCP100-450 DI)	170040035	
IC23 (DS75176BN 或 SN75176BP)	170170012	
IC24 (24LC256)	170170058	

NOTE: You may order all parts of the PILOT 1200 besides the table listed above. When ordering please state the exact name and part no. Repairs must be carried out by a qualified technician.

CHANGING THE OPERATION VOLTAGE AND/OR FREQUENCY

To be carried out by qualified engineers only

The power input setting of the PILOT 1200 may be changed to suit the supply in your area that the unit is to be operated. The voltage and frequency are pre-set at the factory and marked on the exterior of the unit.

Any error or mistake in setting the voltage or frequency of the projector may seriously damage the unit.

Make sure the specifications of the transformer match the power supply and if not, the suitable transformer must be ordered (see the data).

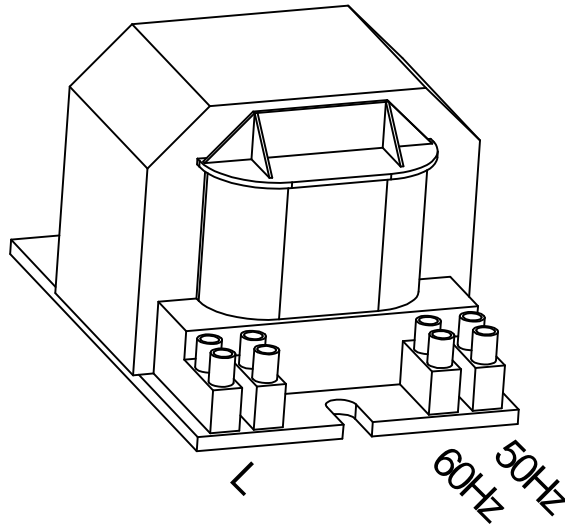
It is strongly recommended that you immediately mark the new frequency on the projector so that it may not be mistaken for the factory set frequency.

To change the frequency

Open the base of the projector by unscrewing the eight screws on the top of the base and do the following operation.

Locate the ballast in the base of the projector, and select the required frequency from 50Hz or 60Hz by moving the cable to the appropriate position. The ballast will be labeled to show the connections.

Never move or disconnect the cable attached to the connector marked "L".



Once finished with the settings, re-assemble covers.

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