



MEGA COLOUR 2500

PR-1255

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.
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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
Waterproof power female plug	1	Pc	3-pin 16A
XLR cable	1	Pc	With plug and socket
Safety cord	4	Pcs	
Fastfit clamp	4	Pcs	
This manual	1	Pc	

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, IP44. 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 10m. ⚠ 10m ⚠

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.

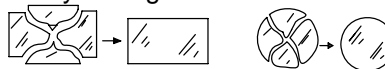
The lamp used in this projector is a discharge lamp. After switching off don't attempt to restart the projector until lamp has cooled, this will require approx 15 minutes. Switching the lamp on and off at short intervals will reduce the life of both the lamp and the projector. But occasional breaks will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

Never run the projector without a lamp.

The lamp shall be changed if it has become damaged or thermally deformed.

Shields and lens shall be changed if they have become visibly damaged to such an extent than their effectiveness is

impaired, for example by cracks or deep scratches.



Exterior surface temperatures of the luminaire after 5 minutes operation is 60°C, when steady state is achieved 80°C,

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

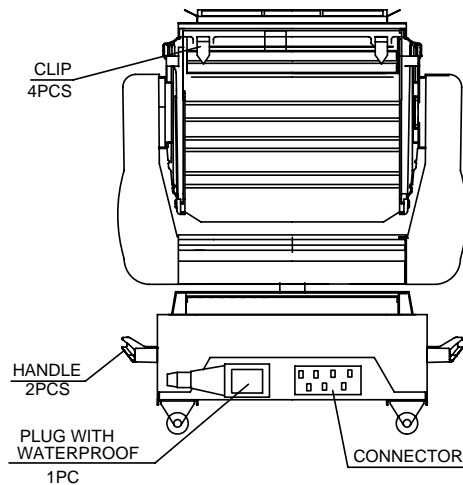
There is no user serviceable parts inside the projector, do not open the housing and never operate the projector with the covers removed.

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

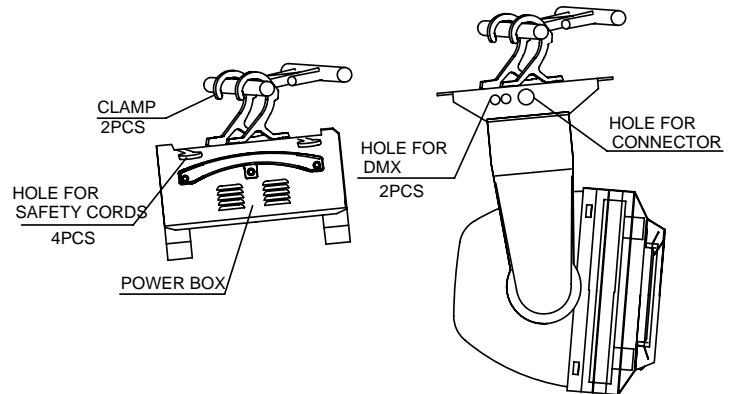
If you have any questions, don't hesitate to consult your dealer or manufacturer.

INSTALL THE PROJECTOR

Fitted on the floor



Fitted on the ceiling



The unit was designed to make installation easy: it can be fitted on a floor, wall or ceiling as required and will operate in any working position,

Take fastfit clamps and 4 safety cords out from the package and mount them on the underside of fixture. Hang the fixture on the structure and fasten the screws attached to each clamp. 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 MEGA COLOUR 2500.

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 the yoke before fitting/replacing the lamp.

Loosen 4 clips and open the front covers.

Remove and rotate the filter module by undoing 2 M4 screws, then you will see the lamp holder and reflector.

Do not change new lamp until old lamp has cooled.

Insert the new lamp in the lamp-holder, and ensure the little bubble on the lamp is at a right angle (90°) to the beam path.

Keep the lamp clean during installation.

Fasten 2 M3 screws at the both ends of lamp.

Put back the filter module and fasten 2 M4 screws.

Close the front cover and fasten 4 clips.

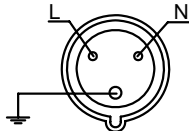
POWER SUPPLY-MAINS

Connect the power cord as follows:

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

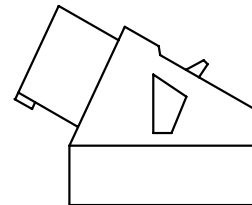
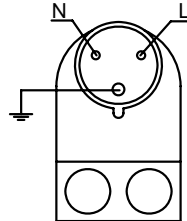
Use the plug provided to connect the mains power to the projector paying attention to the voltage and frequency marked on the panel of the projector. It is recommended that each projector be supplied separately so that they may be individually switched on and off.

3 - PIN FEMALE PLUG



L = PHASE
N = NEUTRAL
⏏ = GROUND

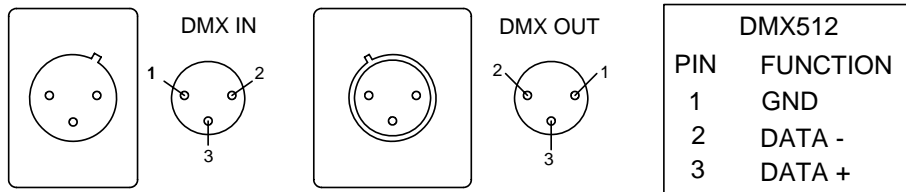
3 - PIN MALE SOCKET



IMPORTANT

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

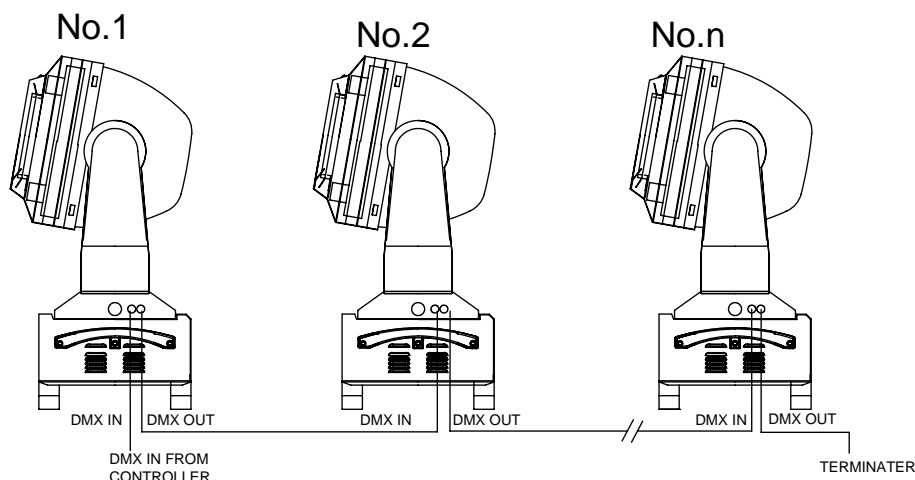
CONTROL CONNECTION



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.

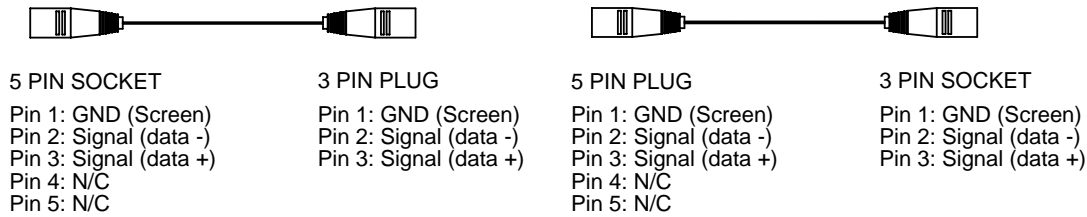
Note: care should be taken to ensure that none of the pins touch the metallic body of the plug or each other. The body of the plug is not connected in any way. The MEGA COLOUR 2500 accepts digital control signals in protocol DMX512 (1990).

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.



The projector uses 3-pin XLR plug / socket. If your controller uses 5-pin XLR plug / socket, you should convert 5-pin plug

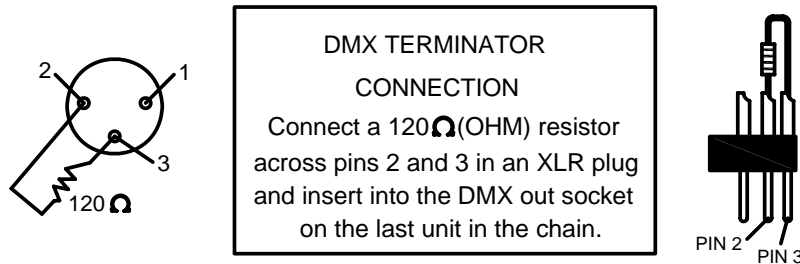
/ socket into 3-pin socket / plug as shown below.



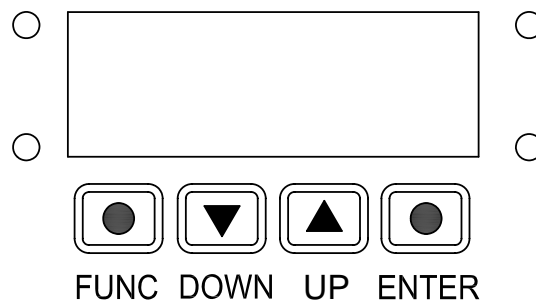
DMX TERMINATOR

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 10 option codes from **DMX Address** to **Lamp Manual Control**, and each code has a specific function.

Press button **ENTER** to save your settings or enter the submenu.

Press button **UP** or **DOWN** to decrease / increase the numbers.

Press button **FUNC** will return to the previous menu one by one. If you stay for minutes the screen will return to the default display status automatically.

TO SET THE DMX START ADDRESS

Each unit 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 projector have 11 channels, so set No. 1 projector's address 001, No. 2 projector's address 012, No. 3 projector's address 023, No. 4 projector's address 034, and so on.

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

Press button **ENTER** to display **DMX address**;

Press button **UP** or **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 previous menu one by one.

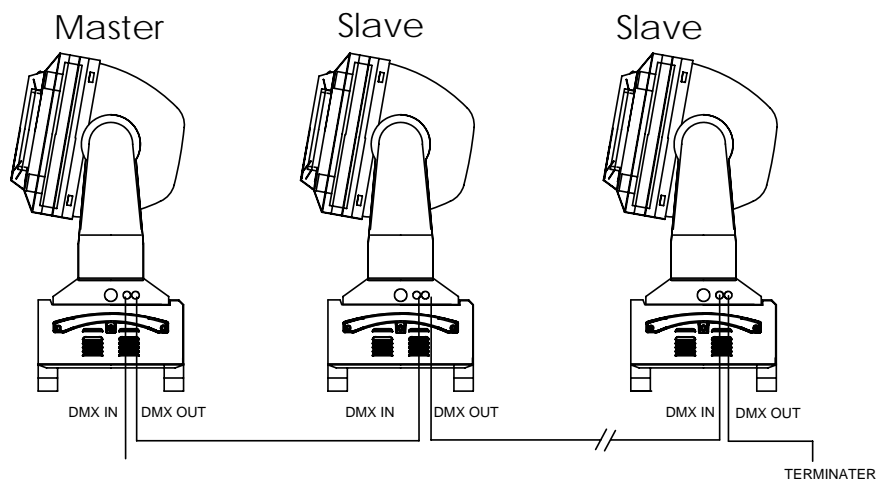
STAND-ALONE MODE

Operate the projector without connecting a controller, enable the master mode in the operation panel, the projector will run in Stand-Alone mode automatically.

MASTER/SLAVE MODE

Without using a controller, many projectors can run synchronously in the Master/Slave mode by linking them with each other. Select one projector as the master with setting options master mode enabled but slaves. Regard the other projectors as the slaves with setting options slave mode enabled and all DMX start address "001".

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.



OPERATION MENU

1st LEVEL	2nd LEVEL	3rd LEVEL	4th LEVEL	5th LEVEL	6th LEVEL
PR LIGHTING MEGA COLOUR 2500					
DMX Address	DMX Address (001-512)				
Reset	Reset Are you sure				
Operation Mode	Mode= DMX Operation				
	Mode= Master Mode	Select Memory Preset Memory 1			
		Select Memory Preset Memory 2			
		Select Memory Preset Memory 3			
		Select Memory User Memory 1			
		Select Memory User Memory 2			
	Mode= Salve Mode	Select Memory Preset Memory 1			
		Select Memory Preset Memory 2			
		Select Memory Preset Memory 3			
		Select Memory User Memory 1			
		Select Memory User Memory 2			
	Mode= Static Scene				
Option Settings	Option Lamp Control	Lamp Control By Power On			
		Lamp Control By Control Channel			
		Lamp Control By DMX Present			
	Option Display Mode	Display On Always			
		Display Off After Delay			
	Option Display Dimming	Disp Dim Level Min			
		Disp Dim Level 1			
		Disp Dim Level 2			
		Disp Dim Level 3			
		Disp Dim Level 4			
		Disp Dim Level 5			
		Disp Dim Level 6			

		Disp Dim Level 7			
		Disp Dim Level 8			
		Disp Dim Level 9			
		Disp Dim Level Full			
	Option Pan DMX Invert	Pan DMX Invert OFF			
		Pan DMX Invert ON			
	Option Tilt DMX Invert	Tilt DMX Invert OFF			
		Tilt DMX Invert ON			
	Option Pan Tilt Swap	Pan Tilt Swap OFF			
		Pan Tilt Swap ON			
	Option Dimmer Invert	Dimmer Invert OFF			
		Dimmer Invert ON			
	Option Defaults	Defaults OFF			
		Defaults Restore Defaults			
Information	Display Lamp Hours	Lamp Hours=XX	Reset Lamp Hours Are You Sure?		
	Display Total Hours	Total Hours=XX			
	Display Temperature	Temperature Display Board	Display Board=XX°C		
		Temperature Drive Board	Drive Board=XX°C		
		Temperature Pan Tilt Board	Pan Tilt Board=XX°C		
	Display Firmware Version	Firmware Version Display Board	Display Board=X.X.X		
		Firmware Version Drive Board	Drive Board=X.X.X		
		Firmware Version Pan Tilt Board	Pan Tilt Board=X.X.X		
Test Modes	Test Modes Factory Setup	Factory Setup Off			
		Factory Setup On			
	Test Modes Self Test	Self Test Off			
		Self Test On			
User Memory	Edit User Memory	User Memory 1	Scene XX (1~32)	Dimmer	Dimmer XXX
				CYM_Macro (Overrides CYM)	CYM Macro
				Cyan	Cyan XXX (0~255)
				Yellow	Yellow XXX (0~255)
				Magenta	Magenta XXX (0~255)

				Pan Coarse	Pan Coarse XXX
				Pan Fine	Pan Fine XXX
				Tilt Coarse	Tilt Coarse XXX
				Tilt Fine	Tilt Fine XXX
				M-S peed	M-Speed XXX(000~255)
				Delay	Delay XX Seconds (0.25s~100min)
				Link To Step	Link To Step XXX (1~32)
		User Memory 2	Scene XX (1~32)	Dimmer	Dimmer XXX
				CYM_Macro (Overrides CYM)	CYM Macro
				Cyan	Cyan XXX (0~255)
				Yellow	Yellow XXX (0~255)
				Magenta	Magenta XXX (0~255)
				Pan Coarse	Pan Coarse XXX (0~255)
				Pan Fine	Pan Fine XXX (0~255)
				Tilt Coarse	Tilt Coarse XXX
				Tilt Fine	Tilt Fine XXX
				M-Speed	M-Speed XXX(000~255)
				Delay	Delay XX Seconds (0.25s~100min)
				Link To Step	Link To Step XXX (1~32)
		Static Scene	Dimmer	Dimmer XXX	
			CYM_Macro (Overrides CYM)	CYM Macro	
			Cyan	Cyan XXX(0~255)	
			Yellow	Yellow XXX (0~255)	
			Magenta	Magenta XXX (0~255)	
			Pan Coarse	Pan Coarse XXX	
			Pan Fine	Pan Fine XXX	
			Tilt Coarse	Tilt Coarse XXX	
			Tilt Fine	Tilt Fine XXX	
	Init User Memory	Reset Static Scene	Reset Static Scn <Unlock> 2 3 & 4		

		Reset User Memory 1	Reset User 1 ? <Unlock> 2 3 & 4		
		Reset User Memory 2	Reset User 2 ? <Unlock> 2 3 & 4		
Timer Modes	Timer Modes On / Off	Timer Modes Always On			
		Timer Modes Use Start / Stop			
	Start 1 = XXXX	Set Start 1 to: Start By Time	Set Start 1 Time Hour = XX		
			Set Start 1 Time Minutes = XX		
		Set Start 1 to: Power On			
	Stop 1 = XXXX	Set Stop 1 to: Stop 1 By Time	Set Stop 1 Time Hour = XX		
			Set Stop 1 Time Minutes = XX		
		Set Stop 1 to: Power Off			
	Start 2 = XXXX	Set Start 2 to: Start By Time	Set Start 2 Time Hour = XX		
			Set Start 2 Time Minutes = XX		
		Set Start 2 to: Not used			
	Stop 2 = XXXX	Set Stop 2 to: Stop 2 By Time	Set Stop 2 Time Hour = XX		
			Set Stop 2 Time Minutes = XX		
		Set Stop 2 to: Power Off			
Time Clock	Get Current Time	Current Time = XX			
	Set Time	Set Time Hour = XX			
		Set Time Minutes = XX	Current Time = XX: XX		
Lamp Manual Control	Lamp Status	Status = XX Control = XX			
	Turn Lamp On				
	Turn Lamp Off				

DMX PROTOCOL

CHANNEL	FUNCTION	DMX VALUE	DESCRIPTION
1	Dimmer	000-255	From black to full open in linear
2	CYM Macro	000-016	Open
		017-035	Colour1
		036-054	Colour 2
		055-073	Colour 3
		074-092	Colour 4
		093-110	Colour 5
		111-128	Colour 6
		129-255	CYM colour mixing Macros from fast to
3	Cyan	000-255	Linear adjust from dark to light
4	Yellow	000-255	Linear adjust from dark to light
5	Magenta	000-255	Linear adjust from dark to light
6	Pan	000-255	Pan rotation 400°
7	Tilt	000-255	Tilt rotation 160°
8	Pan & Tilt Speed	000-255	Pan&Tilt speed from fast to slow
9	Pan Fine	000-255	Pan rotation in 16 bit
10	Tilt Fine	000-255	Pan rotation in 16 bit
11	Control	000-047	Reserved
		048-080	Reset(stay for 10 s)
		081-112	Reserved
		113-144	Lamp OFF (stay for 10 s)
		145-223	Reserved
		224-255	Lamp ON (stay for 10 s)

LED INDICATION

Green	On	DMX signal OK
	Off	No DMX signal
	Flash	DMX signal error
Yellow	On	Setting the panel
Blue	On	Power
Red/Green	Red	Running Slave mode or self test mode
	Green	Running Master mode

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. 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 operational, if not call a qualified technician.

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

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	<ul style="list-style-type: none"> ➤ Check the fuse on the power socket. ➤ Replace the lamp.
The lamp comes on but the projector doesn't respond to the controller	<ul style="list-style-type: none"> ➤ Make sure that the projector is correctly configured. ➤ Replace or repair the DMX cable.
The projector only functions intermittently	<ul style="list-style-type: none"> ➤ Make sure the fan is working and not dirty.
Defective projection	<ul style="list-style-type: none"> ➤ Check the lenses are not broken. ➤ Remove dust or grease from the lenses.
The project image appears to have a halo	<ul style="list-style-type: none"> ➤ Make sure the lamp is installed correctly. ➤ Carefully clean the optical group lenses and the projector components.
The beam appears dim	<ul style="list-style-type: none"> ➤ Check the optics is clean. ➤ Replace with a new lamp of the specified type and rating.

TECHNICAL DATA

VOLTAGES:

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

POWER CONSUMPTION:

2800W@220V

LAMP:

PHILIPS	MSI 2500W
Colour Temperature	5600°K
Socket	SFa21-12
Manufacturers Rated Lamp Life	600 Hours replacement

COLOURS:

Smooth CYM colour mixing system with macros

DIMMER:

0-100% linearly adjustable

HEAD MOVEMENT:

Pan 400°, Tilt 160° with auto position correction

BEAM ANGLE:

60° x 45°

CONTROL:

DMX512, 3 pin interfaces
11 channels
Master/Slave mode
Stand-alone mode
User memories
Timer modes

OTHER FUNCTIONS:

Adjustable Pan & Tilt speed
Fixture and lamp usage time display
Adjustable brightness and contrast of LCD display
Overheating protection device

HOUSING:

High strength aluminium alloy and industrial plastic and composite plastic, IP44

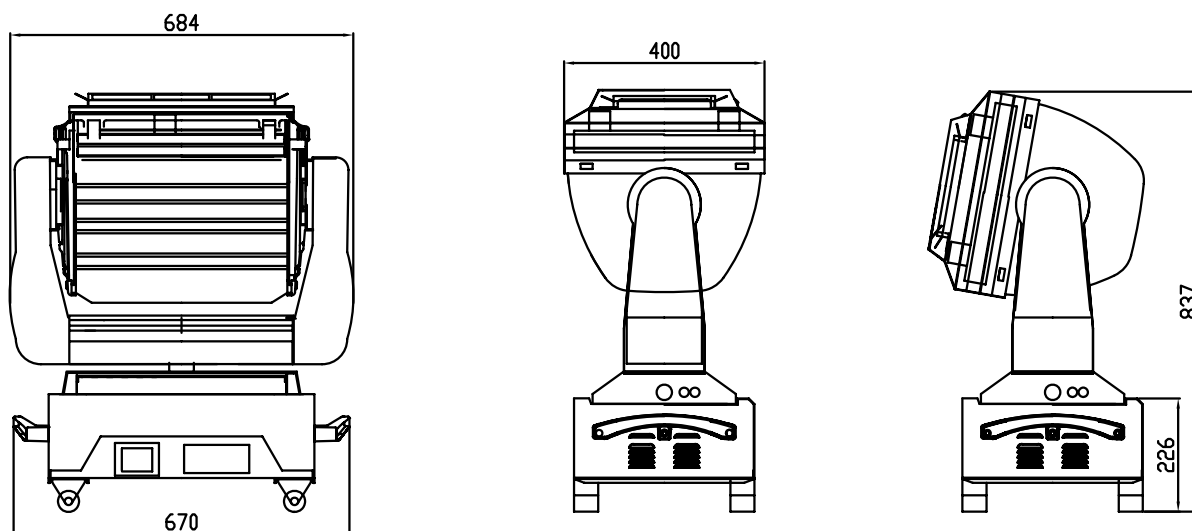
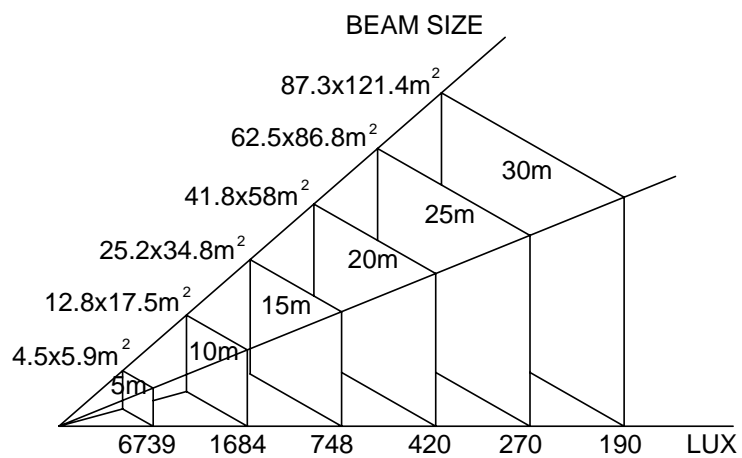
WEIGHT:

Head: 30Kg

Power supply box: 42Kg

SIZES:

See at below

**LIGHT OUTPUT:**

COMPONENT ORDER CODES

NAME	PART NO.	QUANTITY	REMARK
POWER SUPPLY	192010128	1	SKFB-100-1B
IGNITOR	040090004	1	AC 220V-240V
BALLAST	040070033	2	230V/50Hz
RELAY	192010026	1	SSR48HD100
THERMOSTAT	190010035	1	KSD301 120°C
THERMOSTAT	190010054	1	KSD301 95°C
TILT DRIVE BELT	290151236	1	HTD801-3M-
PAN DRIVE BELT	290151236	2	HTD801-3M-
FAN ON THE COVER	030060022	3	230V/22W 120X120
FAN IN BOX	030069010	1	3E-230B-W
LAMP	100050026	1	MSI 2500W
PAN MOTOR	030040137	1	23HS3030
TILT MOTOR	030040130	1	23HS3030-04
CYM MOTOR	030040029	3	42BYGH905-3A 5*20
DIMMER MOTOR		1	
PAN/TILT DRIVE PCB	230020301	1	
MOTOR DRIVE PCB	230020300	1	
DISPLAY PCB	230020231	1	
POWER PCB	230020167	1	

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