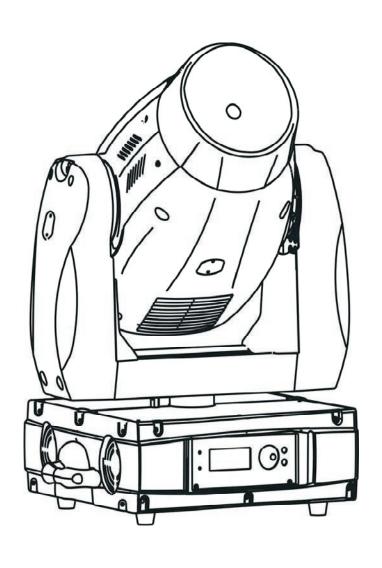
ELECTRA LIGHT

BEAM 300 BEAM 700







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Thank you for purchasing our product

SAFETY INSTRUCTION

For your own safety, please read this user manual carefully before installing the device.







Caution!

Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching wires!

Keep this manual for future needs

- -Be carefully read this user's manual before install and operate
- It is absolutely necessary for the user to follow the safety instructions
- -Make sure all staffs related with installation, operation, and carriage and warehouse are qualified.
- -Please check carefully that there is no damage caused by transportation. Should be any dam one, consult your dealer and don't install this device.







Caution!

Keep this device away from rain and moisture! Unplug mains lead before opening housing!

The applicable voltage for the lighting is between AC110-240V 56-60Hz / Electronic ballast, 230V/50Hz/Magnetic ballast. Never use it when thundering and make sure it installing and operating this device on the applicable temperature between -5 °C \sim 45 °C, thereinnohighly inflammable material within a distance of min.1.5m. While choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture and dust.

GENERAL GUIDELINES

Warning!

Operate the device only after having familiarized with its functions. Do not permit operation by person not qualified for operating the device. Most damages are result of unprofessional operation!

- -If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, burns due to ultraviolet radiation, lamp explosion, crash etc.
- -Read the instructions carefully before turning on the power or install this device, in order to maintain this condition and ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions, and warning notes written in this manual.

Keep yourself and others from electric shocks.

-Disconnect to the fixture from AC power before change to lamp, fuse and no any equipments are



operating.

- -For protection from electronic shock, the fixture must be earthed!
- -Install a suitable plug on a power cord, install overload devices. The earth has to be connected!

Prevent you and the safety of others by ultraviolet radiation and lamp explosion.

- -Do not operate the moving head light with strong light without optical lens filter and can be released directly.
- -Danger! Install the lamp with the device switch off only. Make sure the temperature of light body should not be obviously higher than the surrounding temperature.
- Noted that change lamp, leave the device switch off until it has reached to room temperature.
- -Avoid looking directly into the light source when the fixture was put power on.

Prevent you own and others burn or installation-spot catch fire.

- -Avoid to both TDS (temperature detect switch) and fuse direct shock-circuit, for placement use TDS and fuses of same type and rating only.
- -Fixtures cannot be installed on combustible substances (alcohol, gasoline and paper), keep more than 1m distance with wall for smooth air flow, so there should be no shelter for fans and ventilation for heat radiation.
- -The minimum distance between light output and the illuminated surface must be more than 1 meter
- -Never installation optical filter and others on the internal 3-lens.
- -If the device has been exposed to drastic temperature fluctuation (e.g. transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- -Please use original packaging if the device is to be transported. For safety reasons, please be aware that all modifications on the device were forbidden.
- -The maximum ambient temperature 40 $^{\circ}\mathrm{C}$ must never be exceeded.

Prevent you own and the safety of others by the device was crashed.

- -Never lift the fixture by holding it by oneself.
- -Always fix the fixture with an appropriate safety rope and holder
- -Anytime, installing and taking down the fixture, when rigging, de-rigging or servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered area is forbidden.

TECHNICAL SPECIFICATIONS

-Light Source: Philips MSR 300 FASTFIT -Input voltage: AC100-240 50-60Hz

-Control channels: 16/24CH

-XY Movement: Pan 540°(16 bit), Tilt 280°(16 bit)

-CMY color mixing system

-Color Wheel: 8 replaceable colors plus white, bi-direction revolving rainbow effects available 30 preset CMY color mixing wheels and color macro-asynchronous available



-Rotating Gobo Wheel: 6 replaceable colors plus white, with shaking function and random position function available

-Prism: 3-facet prism, forward and reverse rotation available and reposition function

-Strobe: variable strobing 10 flash per sec, inside strobe macro-function

-Dimmer: 0~100% linear adjustable -Frost: 0~100% linear adjustable

-LCD Display: displaying brightness adjustable (0~100%)

-Electronic ballast: auto energy saving and environmental protected

-Electronic Ballast: AC100~240V, 50/60HZ

-Magnetic Ballast: 230V/50Hz -Dimension: 539×440×450mm

-Net weight: 25Kg

SAFETY OPERATIONS

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follower safety instructions.

Don't permit to operation by persons not qualified for removal or replace to the internal spare parts (machine parts and original PCB). It shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid hazard. Please contact with dealer if have some problems.

Please be aware that damages caused by manual modifications to the device are not subject of warranty.

The lamp

-For the installation, it fits with Philips MSD GOLD 300/2 Mini FastFit, or Philips MSR Gold 300/2 Mini FastFit. This high energy arc light with stable color temperature 8200K, color reproduce index is more than 90, and the working life up to 2,000hrs, or 750hrs.

Warning!

-Make sure use lamp of same type only.

The lamp life expectancy is 2,000hrs, or 750hrs. For safety concerns, please replace a new lamp when the used average life span of lamp more than 125% (940 hours).

Before replacing the lamp, make sure the lamp cools down.

Replacing lamp

Warning!

- -During installation of halogen lamps, do not touch the glass bulb with hand. Please consult dealers for right way to installing the lamp.
- -Make sure your hands are clean when cleaning the lamp. Always use alcohol wiping and use a cloth to handle the lamp during insert or removal, do not touch it until the alcohol volatilized completely. Please get right instructions to installing the lamp from dealers.



Installing or replacing the lamp



CAUTION!

Be careful with your operations. With a dangerous voltage will suffer burn, caused fire!

- -Please notice that the lamp is not a hot-restrict type, and wait approximately 15 minutes after having turned off the lamp before you can turn it back on again.
- -Make sure switch off before installation or replace the lamp. Never touch it by bare hands when installing or replacing. Please use a Philips MSD GOLD 300/2 Mini FastFit or Philips MSR GOLD 300/2 Mini Fastfit, replacing it use same type too.
- -Unscrew **Screw marked A** on the back of lamp-holder, it used to remove the lamp panel to replace the lamp. It is can reach an excellent effects to fine-tuning screw on the back of lamp panel mark X, Y and Z, which used for adjust to the lamp.

Connection of Fixtures

Notice!

Connect one signal input with one signal output.

This fixture is equipped with 3-Pin XLR Sockets for DMX Input and output. Re 3 Pin DMX in & out XLR Socket, Pin 1 refers to Ground, Pin 2: Signal-, Pin 3: Signal + (as Graphs below):

DMXOutput DMXInput





-The signal sockets are wired in parallel: one input, one output.

Mounting the device

- -DMX512 always used STP (shielded twisted pair). Please advice use big cable or install DMX distributor during long distance use standard cable.
- -Do not separate one DMX Output into two Outputs.
- -Do not connect overloaded. The max connected BEAM300 in each DMX Chain is 32 pcs.
- -There should be a terminator on the last unit of DMX line. A terminator is a 120 ohm 1 watt resistor which is a connection between Pin 2 and Pin 3 of a Male XLR connector Using a cable terminator will decrease the possibility of erratic behavior

DMX512 Connection

- -Please connect 3-pin XLR connector to 3 Pin socket for DMX IN
- -And DMX OUT of former fixtures connects to DMX IN of the next fixture in the DMX Chain with the same compatible DMX Cable in the DMX-output of the fixture.



-There should be a terminator on the last unit of DMX Chain.

Connection to the Mains

Before use this fixture safely, please install a suitable plug on the power cord, and make sure the fixture is appropriately earthed.

Please refer to the following table:



CONTROL MODE

DMX address of fixtures ranges from 001-504/488. Please note that the maximum range should not exceed 504/488.

DMX Addressing

Please set DMX Address of fixture on LCD Display

For example, selecting **16BIT MODE 1**, then the DMX Address of the first light is 001 (001-024). The second one will display 017(015-039), and so on.

Caution:

It's necessary to insert the XLR terminator (by connecting a 1/4W 120Ω between signal PIN-2/ +3) on the last fixture of a DMX Chain to avoid possible signal interference.

LCD Menu Display Instruction

Function Mode:

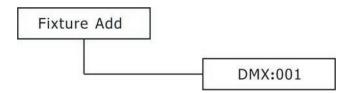
MHG LIGHTING

Press button **ENTER** to enter Menu, and press button **ESC** back to display setting:

MHG LIGHTING

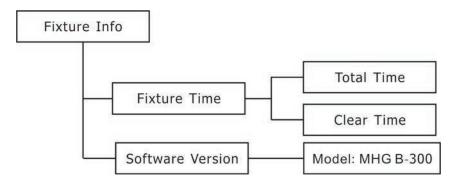
There are corresponding submenus for specific function under the main menu. For details, please refer to Graph below:

-It is used to set DMX Address of fixtures from 0-511.



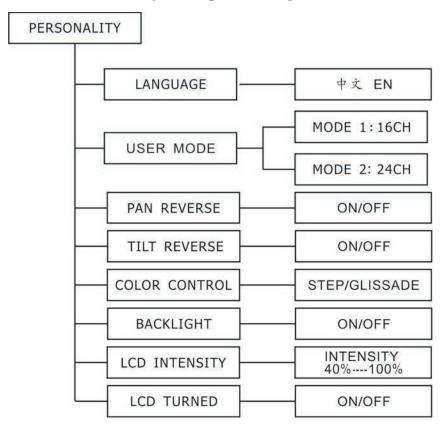
-It displays fixture Info.





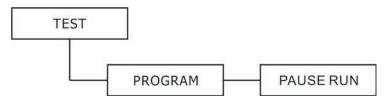
After entering above Menu, please button <u>ENTER</u> to enter turn the Rotating Wheel to make specific Selections, and press button <u>Enter</u> to confirm, or button <u>ESC</u> to exit.

This menu is to modify running mode or operation status of this fixture.



After entering above Menu, please button <u>ENTER</u> to enter turn the Rotating Wheel to make specific Selections, and press button <u>Enter</u> to confirm, or button <u>ESC</u> to exit.

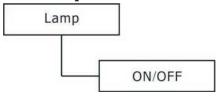
-Use this menu to run a special demo-test sequence.





After entering above Menu, please button <u>ENTER</u> to enter turn the Rotating Wheel to make specific Selections, and press button <u>Enter</u> to confirm, or button <u>ESC</u> to exit.

-Use this option in order to switch On/Off the lamp manually.



After entering above Menu, please button <u>ENTER</u> to enter turn the Rotating Wheel to make specific Selections, and press button <u>Enter</u> to confirm, or button <u>ESC</u> to exit.

-Select this menu, fixtures can be controlled manually. The definition of each channel is as below:

Manual Mode

DMX CHANNELS:

CH1	PAN (A COARSE PAN MOVEMENT)
CH2	TILT (A COARSE TILT MOVEMENT)
CH3	PAN (A FINE PAN MOVEMENT)
CH4	TILT FINE (A FINE TILT MOVEMENT)
CH5	XY (A PAN/TILT SPEED)
CH6	COLOR WHEEL (A COLOR WHEEL)
CH7	COLOR WHEEL FINE (A FINE COLOR WHEEL)
CH8	CYAN (CYAN)
CH9	MAGENTA (MAGENTA)
CH10	YELLOW (YELLOW)
CH11	CMY SPEED (CMY SPEED)
CH12	CMY MACRO (CMY MACRO)
CH13	FIXD GOBO (A COLOR-GOBO WHEEL)
CH14	GOBO INDEX (A INDEXING GOBO WHEEL)
CH15	GOBO RT (A ROTATING GOBO WHEEL)
CH16	PRISM (PRISM)
CH17	PRISM INDEX (A INDEXING PRISM)
CH18	PRISM ROT (A ROTATING RPISM)
CH19	FROST (A FROST)
CH20	SHUT (S SHUTTER, STROB)
CH21	DIMMER (A DIMMER)
CH22	DIMMER FINE (A FINE DIMMER)
CH23	LAMP (A LAMP ON/OFF)
CH24	RESET (RESETTING)

After entering above Menu, press button <u>ENTER</u> to enter turn the Rotating Wheel to make specific Selections, and press button <u>Enter</u> to confirm, or button <u>ESC</u> to exit.

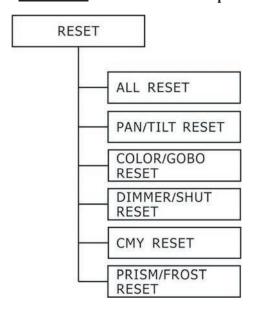
Procedure:

-Select the program and press **ENTER**, Press **(UP)** or **(DOWN)** to select the program you wish CH1---PAN(a coarse pan movement), by pressing ENTER again to display:

X : 000



- -Change the value from 0-255 via the Rotating Wheel to select the effect; press *ENTER*, reserve the value (After exit the menu, all the DMX value will be 0); When there is DMX signal, the manual mode always has the priority, When exit the manual mode, the fixture will be back to the DMX value.
- -Select the program you wish and press <u>ENTER</u>. The selected program starts running. By Pressing <u>ENTER</u> again is possible to pause the program running. You can exit every mode by pressing the <u>Mode/ESC</u>-button. The function provided is described in the following sections:



Accessed to the menu as above, by pressing **ENTER** and display:

RESETTING

DMX CHANNEL Assignments

MODE1: 16CH

	16CH BEAM300	D DMX PROTOCOLS	
CHANNEL	DMX VALUE	FUNCTION	REMARK
CH1PAN	0255	0°540°	
CH2TILT	0255	0°280°	
CO VV CDEED	0250	XY Speed from fast to slow	
C3XY SPEED	251255	XY Fast speed	
	013	White	
	1427	Color 1	
	2 2841 Colo	r	
CH4COLOR WHEEL	3 4255 Colo	r	
CH4COLOR WHEEL	4 5669 Colo	r	
	5 7083 Colo	r	
	6 8497 Colo	r	
	98111	Color 7	



	16CH BEAM30	0 DMX PROTOCOLS	
CHANNEL	DMX VALUE	FUNCTION	REMARK
	112127	Color 8	
		Color wheel change colors	
	128189	clockwise from fast to slow	
CH4COLOR WHEEL	190193	Stop	
		Color wheel change colors	
	194255	anti-clockwise from slow to fast	
CH5CYAN	196255	White-Cyan	
CH6MAGENTA	0255	White-Magenta	
CH7YELLOW	0255	White-yellow	
CH8CMY SPEED	0255	CMY speed from fast to slow	
	09	Open	
	1019	Gobo 1	
	2 2029 Gob	p	
	3 3039 Gob	o	
	4 4049 Gob		
	5 5059 Gob		
	6 6069 Gob		
CH9ROTATING GOBO	7089	Gobo 1 shaking	
	90109	Gobo 2 shaking	
	110129	Gobo 3 shaking	
	130149	Gobo 4 shaking	
	150169	Gobo 5 shaking	
	170189	Gobo 6 shaking	
	190255	Gobo rotating from slow to fast	
	0127	Fine positioning	
	0 12.	Forwards Gobo wheel rotation	
	128189	from fast to slow	
CH10GOBO RT	190193	Stop	
		Backwards Gobo wheel rotation	
	194255	from fast to slow	
	0127	Open	
CH11PRISM	128255	Prism	
	0127	Prism position	
		Prism rotating clockwise from	
CH12PRISM RT	128189	fast to slow	
	190193	Stop	
		Prism rotating anti-clockwise	
	194255	from slot to fast	
CH13FROST	0255	Frost	
	0—1	Shutter close	
CH14SHUT	2—7	Shutter open	



	16CH BEAM30	0 DMX PROTOCOLS	
CHANNEL	DMX VALUE	FUNCTION	REMARK
	863	Strobe from slow to fast	
	6471	Shutter open	
	72127	Strobe fade in from fast to slow	
	128135	Shutter open	
CH14SHUT	136191	Strobe fade out from slow to fast	
	192199	Shutter open	
	200253	Radon strobe from slot to fast	
	254255	Shutter open	
CH15DIMMER	0255	0%100%	
	0—39	Nofunction	
	4058	Lamp on	
	5978	Lamp off	
	7998	X/Y tilts reset	
CHIA PHINOTECNI	99118	Color wheel/gobo wheel reset	
CH16FUNCTION	119138	Dimmer/strobe reset	
	139158	C/M/Y reset	
	159178	Prism/Frost reset	
	179198	All reset	
	199-255	No function	

MODE2: 24CH

	24CH BEAM30	00 DMX PROTOCOLS	
CHANNEL	DMX VALUE	FUNCTION	REMARK
CH1PAN	0255	0°540°	
CH2TILT	0255	0°280°	
CH3PAN FINE	0255	0°10°	
CH4TILT FINE	0255	0°5°	
CHE VV CREEN	0250	XY speed from fast to slow	
CH5XY SPEED	251255	XY fast speed	
	013	White	
	1427	Color 1	
	2841	Color2	
CH6COLOR WHEEL	4255 Color3	3	
	5669 Color4	Į.	
	7083 Color5	, 5	
	8497	Color 6	



24CH BEAM300 DMX PROTOCOLS				
CHANNEL	DMX VALUE	FUNCTION	REMARK	
	98111	Color 7		
	112127	Color8		
	190 100	Color wheel rotating clockwise from		
CH6COLOR WHEEL	128189	fast to slow		
	190193	Stop		
	194255	Color wheel rotating anti-clockwise		
		from slow to fast		
CH7COLOR FINE	0255	Color wheel fine		
CH8CYAN	196255	0-100% Cyan		
CH9MAGENTA	0255	0-100% Magenta		
CH10YELLOW	0255	0-100% Yellow		
CH11CMY SPEED	0255	CMY speed from fast to slow		
	03	No function		
	410	MACRO1		
	1117	MACRO2		
	1824 MAC	RO3		
	2531 MAC	RO4		
	3238 MAC			
CH12MACRO	3945 MAC			
	4652 MAC	RO7		
	5359 MAC	RO8		
	6066 MAC	RO9		
	6773	MACRO10		
	7480	MACRO11		
	8187 MAC	RO12		
	8894 MAC	RO13		
	95101	MACRO14		
	102108	MACRO15		
	109115 MACRO16			
	116122 MACRO17			
CHIA MACDO	123129 MACRO18			
CH12MACRO	130136 MA			
	137143 MA			
	144150 MA			
	151157 MA			
	158164 MA	CRO23		
	165171 MA	CRO24		
	172178	MACRO25		

ELECTRA LIGHT

		24CH BEAMS	300 DMX PROTOCOLS	
CHANNEL		DMX VALUE	FUNCTION	REMARK
			MACRO26	
		186192	MACRO27	
		193199	MACRO28	
		200206	MACRO29	
		207213	MACRO30	
CH12MACRO		214220	MACRO31	
		221227	MACRO32	
		228234	MACRO33	
		235241	MACRO34	
		242248	MACRO35	
		249255	MACRO36	
		09		
			Open	
		1019	Gobo 1	
	2	2029 Gob		
	3	3039 Gob		
	4	4049 Gob		
	5 6	5059 Gob 6069 Gob		
CH13—FIX GOBO	U	7089	Gobo 1 shaking	
		90109	Gobo 2 shaking	
		110129	Gobo 3 shaking	
		130149	Gobo 4 shaking	
		150149	Ü	
			Gobo 5 shaking	
		170189	Gobo 6 shaking	
		190255	Gobo wheel rotating from slow to fast	
CH14GOBO INDEX		0255	Gobo index 360°	
		0	No function	
			Gobo clockwise rotating from fast to	
		1127	slow	
CH15GOBO RT		128129	Stop	
			Gobo anti-clockwise rotating from	
		130255	slow to fast	
OHIO BETTE		0127	No function	
CH16PRISM		128255	Prism	
CH17PRISM INDEX	ζ	0255	Prism index 360°	
CH18PRISM RT		0	No function	
CHIOFRISNIKI		1127	Prism clockwise rotating from fast to slow	



	24CH BEAM3	000 DMX PROTOCOLS	
CHANNEL	DMX VALUE	FUNCTION	REMARK
CH18PRISM RT	128129	Shutter open	
	130255	Prism anti-clockwise from slow to	
	130233	fast	
CH19FROST	0255	0-100% frost	
	01	Shutter close	
	27	Shutter open	
	863	Strobe from slot to fast	
	6471	Shutter open	
CH20SHUT	72127	Strobe fade in from fast to slow	
Ch2UShU1	128135	Shutter open	
	136191	Strobe fade out from slow to fast	
	192199	Shutter open	
	200253	Radon strobe from slow to fast	
	254255	Shutter open	
CH21DIMMER	254255	Dimming 0-100%	
CH22DIMMER FINE	0255	Dimming fine	
	0129	No function	
	130140	Lamp on	
CH23LAMP	141229	No function	
	230240	Lamp off	
	241255	No function	
	078	No function	
	7998	X/Y tilts reset	
	99118	Color/Gobo reset	
	119138	Dimmer/Strobe reset	
CH24FUNCTION	139158	C/M/Y reset	
	159178	Prism/Frost reset	
	179198	All reset	
	199-255	No function	

INSTALLATION OF FIXTURES

The fixture can be placed directly on the stage floor or hung on a truss.

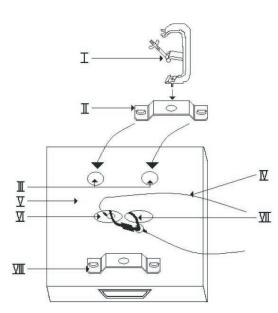




CAUTION!

Use 2 appropriate clamps to hang the fixture on the truss! Make sure that the device is fixed properly! Ensure that the structure (truss) to which you are attaching the fixtures is secure.

Installation instruction



- I. Clamp (optional)
- II. Omega holder
- III. Drill holes
- IV. Safety cable (optional)
- V. Base
- VI. Holes for Safety cable
- VII. Safety cable (optional)
- VIII. Omega

Remark:

For safety concern, the safety cable should hold at least 12 times of the weight of the fixture. The extended length shall not exceed than 20cm.

MAINTENANCE AND CLEANING

DANGER!

Disconnect from the mains before starting any maintenance work

CLEANING

- -It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on or within the fixture. Otherwise, the fixture's light-output will be significantly reduced. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to function reliably throughout its life. A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should alcohol or solvents be used!
- -The front lens will require weekly cleaning as smoke-fluid tends to building up residues, reducing the light output very quickly. The cooling-fans should be cleaned mother
- -The interior of the fixture should be cleaned at least one time per six month using a vacuum-cleaner or an air-jet.
- -Dichroic color filters, CMY filters, gobo wheels and the internal lenses should be cleaned monthly.
- -The PCB need to be cleaned every three months sting a soft brush and vacuum-cleaner
- -Remove dust and dirt from the fans and cooling vents using a soft brush and vacuum-cleaner
- -Clean the air filters placed in the fixture's covers. Use a vacuum cleaner, compressed air or you can wash and put back dry.

REPLACE THE FUSE

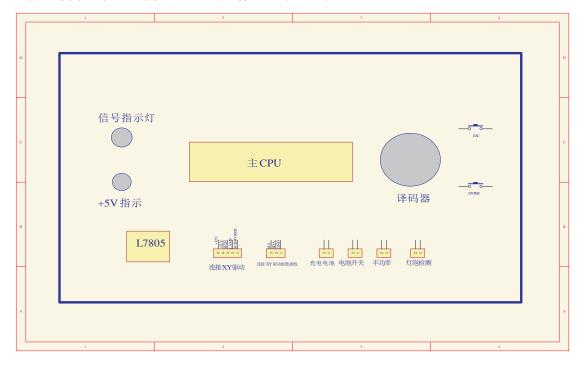


The specification (include the current and the voltage) of the fuse must be the same as the original one

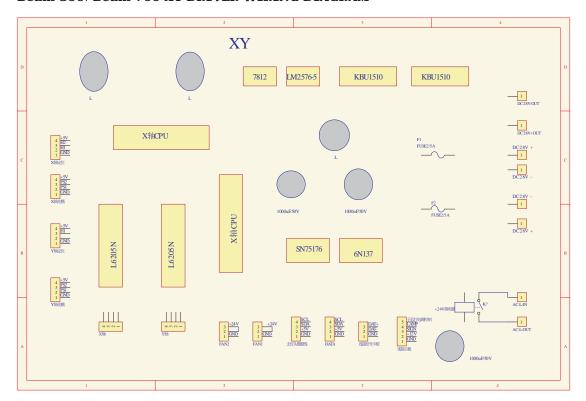
one. Notice:BEFORE REPLACING, MAKE SURE THE PLUG IS PULLING OUT TO AVOID THE RISK OF SHOCK!

WIRING DIAGRAM

Beam 300/Beam 700 MAIN PCB WIRING DIAGRAM

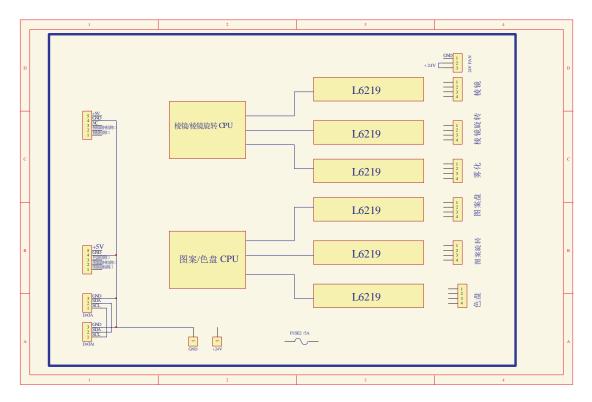


Beam 300/Beam 700 XY DRIVER WIRING DIAGRAM

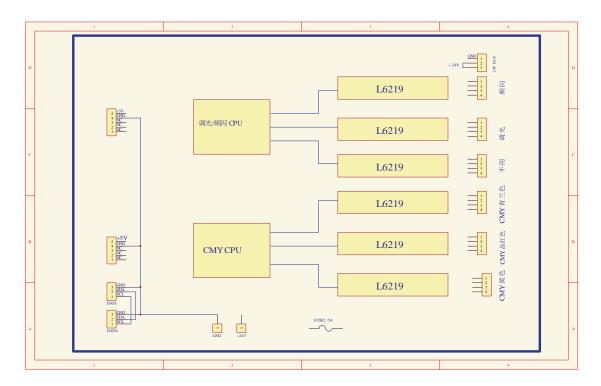




Beam 300/Beam 700 6 ROUTES DRIVER A BOARD WIRING DIAGRAM



Beam 300/Beam 700 6 ROUTES DRIVER B BOARD WIRING DIAGRAM



Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.