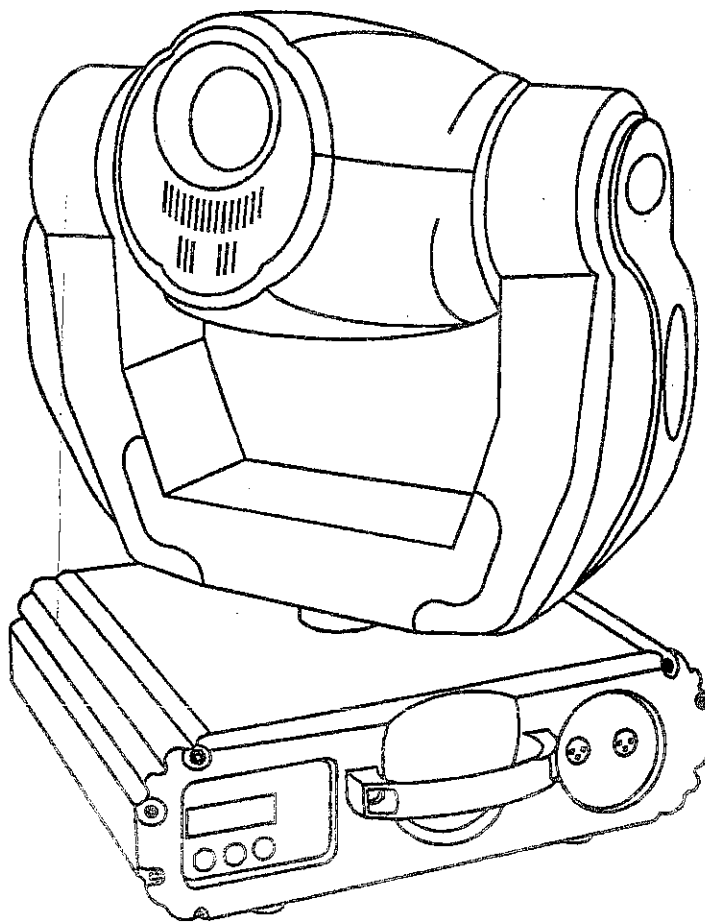


PROFESSIONAL MOVING HEAD USER'S MANUAL

(VER2.8)

MICROH

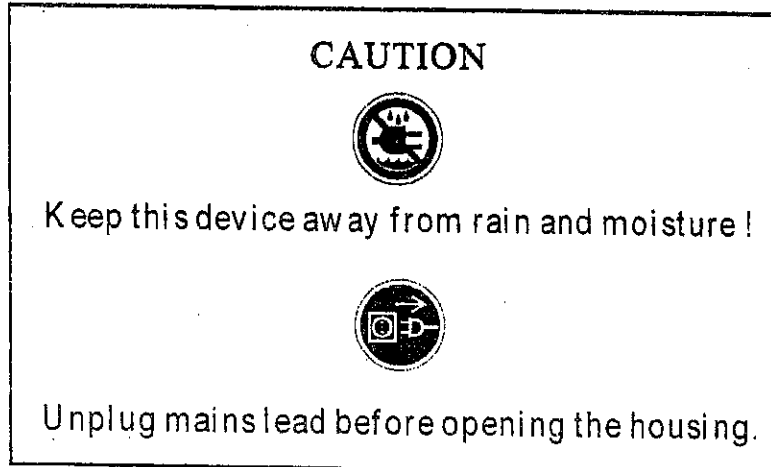
TURBO 250R



KEEP THIS MANUAL FOR FUTURE NEEDS



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



Every person involved with the installation, operation and maintenance of this device has to:

- be qualified
- follow carefully the instructions of this manual

INTRODUCTION:

Thank you for having chosen this professional moving head.
You will see you have acquired a powerful and versatile device.

Unpack the device. Inside the box you should find: the fixture device, a power cable, an XLR connection cable, a safety cable and this manual. Please check carefully that there is no damage caused by transportation. Should there be any, consult your dealer and don't install this device.

Features

- control signal : standard DMX-512, 14 channels
- pan and tilt movement :
 - 8 bit and 16 bit resolution for smooth and precise motion
 - pan : 630° rotation / tilt : 265° rotation
 - speed of pan/tilt movement adjustable
- electronic focus
- strobe/shutter : high speed dual-blade shutter, 0-15Hz or random strobe
- dimmer : mechanical adjust 0%~100%
- colors :
 - 1 color wheel with 8 dichroic glass panes, for a total of 9 colors
 - rainbow effect + white
- gobos :
 - 2 gobo wheels
 - 6 speed adjustable rotating, rainbow effect
 - 7 fixed gobos plus open, rainbow effect
 - gobo shake and gobo index
- prism: 3- face speed adjustable prism rotates in two directions with 16 prism macro effect
- auto-program: 8 pre-built programs can be selected
- display: can turn 180° reverse to meet mounting location requires

- local or remote resetting
- lamp switches ON/OFF locally or remote, motor reset
- auto test for all functions
- value of each DMX-channel can be displayed
- save program:

edit and save the program to the incorporated EEPROM through the front control panel or external controller; can save maximum 48 scenes, and run the saved program by the "run" menu from the front control panel

SAFETY INSTRUCTIONS



CAUTION

Be very careful during installation. Since you will be working with a dangerous voltage you can suffer a life-threatening electric shock when touching live wires.

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

IMPORTANT

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising condensation could damage the device. Leave the device switched off until it has reached room temperature.

This device falls under protection-class I. Therefore it is essential that the device be earthed.

The electric connection must carry out by qualified person.

Make sure that the available voltage is not higher than stated at the end of this manual.

Make sure the power cord is never crimped or damaged by sharp edges. If this would be the case, replacement of the cable must be done by an authorized dealer.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.

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



CAUTION

Never touch the device during operation!
The housing may heat up



CAUTION

Never look directly into the light source,
as sensitive persons may suffer an epileptic shock.

Please be aware that damages caused by manual modifications to the device are not subject to warranty. Keep away from children and non-professionals.

GENERAL GUIDELINES

This device is a lighting effect for professional use on stages, in discotheques, theatres, etc. This fixture is only allowed to be operated with the max alternating current which stated in the technical specifications in the last page of this manual, the device was designed for indoor use only. Lighting effects are not designed for permanent operation. Consistent operation breaks may ensure that the device will serve you for a long time without defects. Do not shake the device. Avoid brute force when installing or operating the device.

While choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. The minimum distance between light-output from the projector and the illuminated surface must be more than 0,5 meter.

Always fix the fixture with an appropriate safety cable if you use the clamp to hang up the fixture. When fixing the device on a raised-from-the-ground support, be sure to use no less than screws and nuts of M10 x 25 mm and insert them in the pre-arranged screw holes in the base of the fixture.

If you use the quick lock cam in hanging up the fixture, please make sure the 4 quick lock fasteners turned in the quick lock holes correctly.

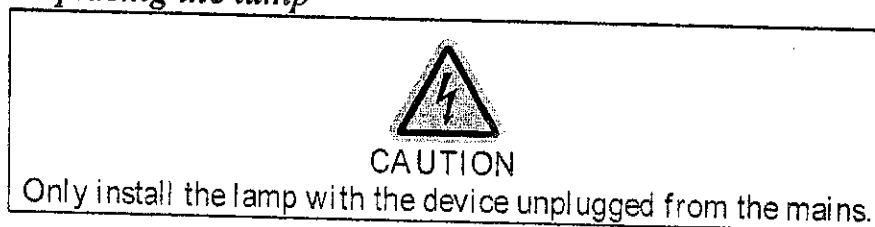
Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation.

Please use the original packaging if the device is to be transported.
For safety reasons, please be aware that all modifications on the device are forbidden.

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 short-circuit, burns, electric shock, lamp explosion, crash, etc.

INSTALLATION INSTRUCTIONS

a) *Installing or replacing the lamp*



Before replacing the lamp let the lamp cool down, because during operation, the lamp can reach very high temperature.

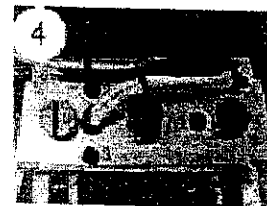
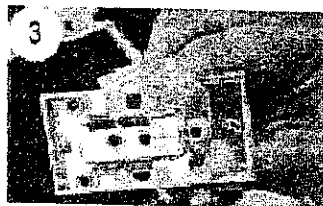
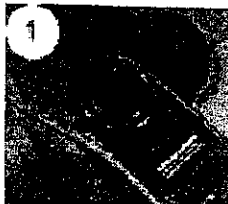
During the installation of halogen lamps do not touch the glass bulbs bare handed. Always use a cloth to handle the lamps during insertion and removal.

Do not install lamps with a higher wattage. They generate higher temperatures than which the device was designed for.

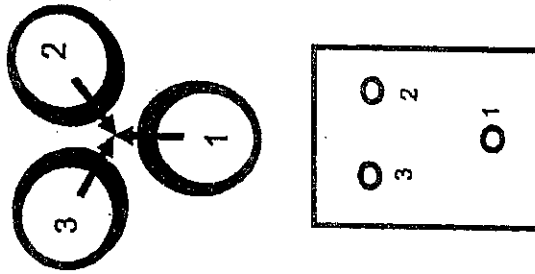
For the installation, you need one MSD250W GY9.5 lamp :

- order code : LAMP MSD250 (Philips) or LAMP MSD250/2

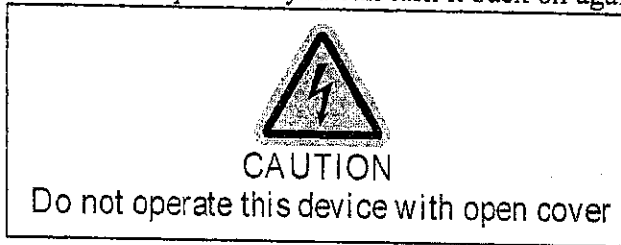
Procedures:



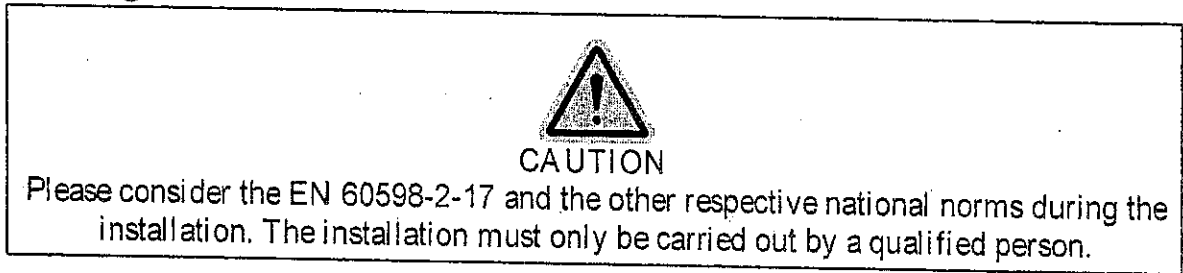
- 1) Unscrew the 3 screws on the top of the housing, holding the plate where the lamp is underneath. Carefully remove the metal plate
- 2) Unscrew the 2 big screws and gently pull the socket holder using the knob in the middle.
- 2) Carefully insert the lamp into the socket. Please remember there is only one way to insert the lamp. Gently slide the lamp and its lamp holder back into place and fasten the 2 big screws.
- 3) On the access plate there are 3 small screws marked 1,2 and 3, which are used to adjust the lamp holder in the lamp housing. You can adjust the 3 screws to fine-tune the position of the lamp to get the maximum light output as shown below.



Please remember the lamp is not a hot-restrike type, you must wait for approximately 10 minutes after having turned off the lamp before you can turn it back on again.



b) Mounting the device



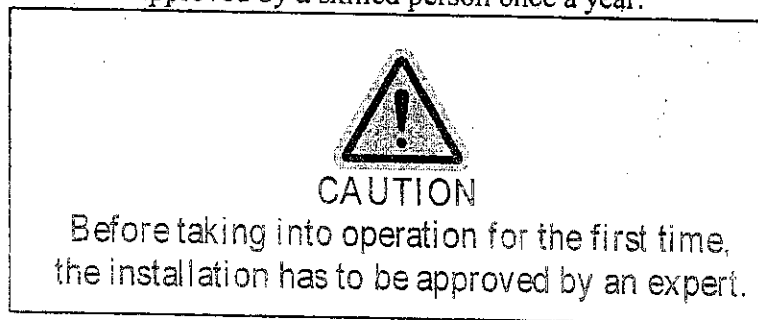
The installation of the effect has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate safety cable.

Never stand directly below the device when mounting, removing or servicing the fixture.

The operator has to make sure the safety relating and machine technical installations are approved by an expert before taking the device into operation for the first time.

These installations have to be approved by a skilled person once a year.



Cautions:

The effect should be installed outside areas where persons may reach it, walk by or be seated.



CAUTION

When installing the device, make sure there is no highly inflammable material within a distance of min. 0,5m

Overhead mounting requires extensive experience, including amongst others calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.



CAUTION

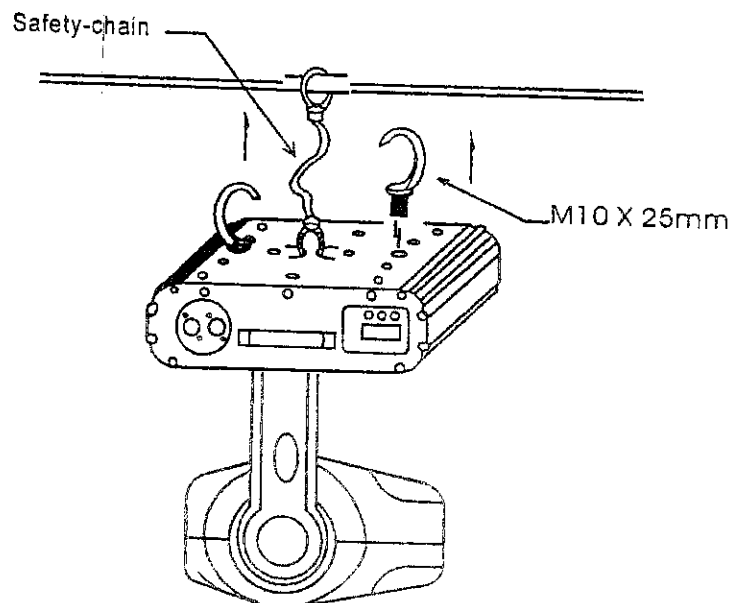
The electric connection must only be carried out by a qualified electrician.

Before mounting make sure that the installation area can hold a minimum point load of 10 times the device's weight.

Connect the fixture to the mains with the power plug.

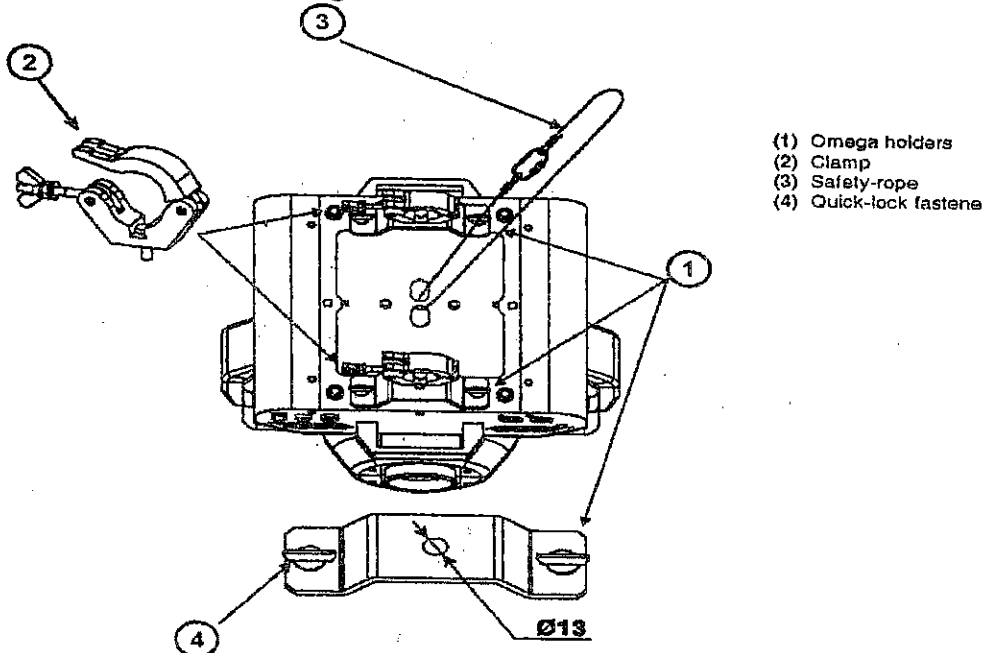
Method 1. Installation via ordinary clamp

Please refer to the picture below:



Screw one clamp each via a M10 screw and nut directly into the base bottom. Pull the safety-chain through the holes on the bottom of the base and over the trussing system or a safe fixation spot. Insert the end in the carabine and tighten the safety screw.

Method 2 : installation via the Omega holders

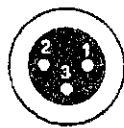


Screw one clamp each via a M12 screw and nut onto the Omega holders.
 Insert the quick-lock fasteners of the first Omega holder into the respective holes on the bottom of the device.
 Tighten the quick-lock fasteners fully clockwise. Install the second Omega holder.
 Pull the safety-rope through the holes on the bottom of the base and over the trussing system or a safe fixation spot. Insert the end in the carabine and tighten the safety screw.

DMX-512 control connection

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.

DMX-output XLR mounting-socket DMX-Input XLR mounting-socket



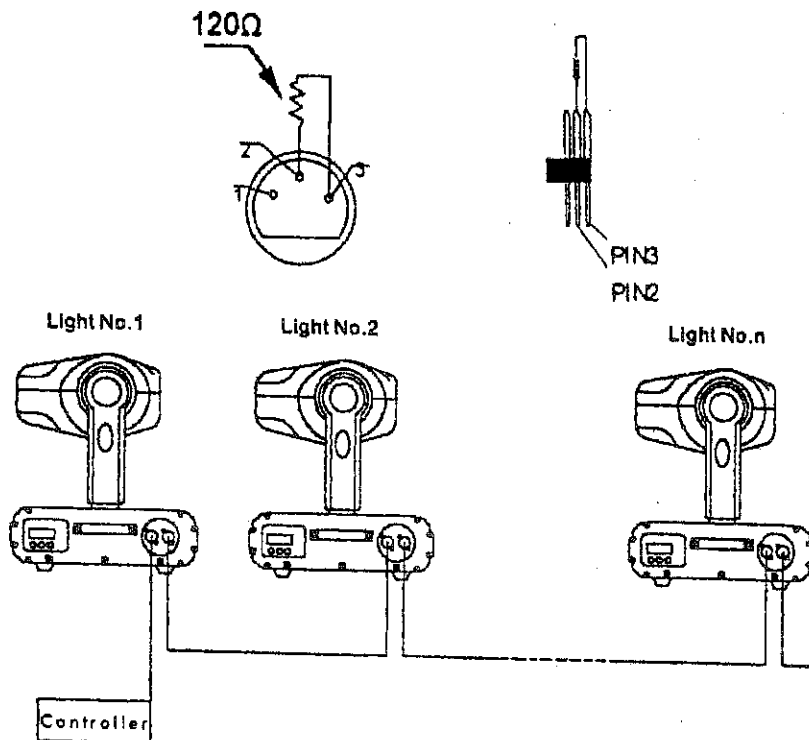
1:Ground
 2:Signal(-)
 3:Signal(+)



1:Ground
 2:Signal(-)
 3:Signal(+)

DMX-512 connection with DMX terminator

For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.



Projector DMX start address selection

All fixtures should be given a DMX starting address when using a DMX signal, so that the correct fixture responds to the correct control signals. This digital starting address is the channel number from which the fixture starts to “listen” to the digital control information sent out from the DMX controller. The allocation of this starting address is achieved by setting the correct number on the display located on the base of the device.

You can set the same starting address for all fixtures or a group of fixtures, or make different address for each fixture individually.

If you set the same address, all the units will start to “listen” to the same control signal from the same channel number. In other words, changing the settings of one channel will affect all the fixtures simultaneously.

If you set a different address, each unit will start to “listen” to the channel number you have set, based on the quantity of control channels of the unit. That means changing the settings of one channel will affect only the selected fixture.

In the case of the spot head, which is a 14 channel fixture, you should set the starting address of the first unit to 1, the second unit to 15 (14 + 1), the third to 29 (15 + 14), and so on.

Note:

After switching on, the machine will automatically detect whether DMX 512 data is received or not. If the data is received, the display will show “A.001” with the actually set address. If there is no data received at the DMX-input, the display flashes “A001” with the actually set address. This situation can occur if:

- the 3 PIN XLR plug (cable with DMX signal from controller) is not connected with the input of the machine.
- the controller is switched off or defective, if the cable or connector is defective or the signal wires are swap in the input connector.

Control Board

The Control Board offers several features: you can simply set the starting address, switch on and off the lamp, run the pre-programmed program or make a reset.

The main menu is accessed by pressing the Enter-button for 3 seconds until the display starts flashing. Browse through the menu by pressing the Up-button. Press the Enter-button in order to select the desired menu. You can change the selection by pressing the Up-button. Confirm every selection by pressing the Enter-button. You can leave every mode by pressing the Exit-button. The functions provided are described in the following sections.

Default settings shaded:

	Main menu	Sub menu	Extension	Display	Function
0	MODE	ADDR	VALU	A001~A511 (AXXX)	DMX address setting
			SLAV	ON/OFF (SLAV)	Slave setting
			EBOC	OFF	No functions
		RUN	AUTO	ALON (AU-A)	Automatic Program Run in Stand Alone
				MAST (AU-M)	Automatic Program Run as Master
			SOUN	ALON (SO-A)	Sound-controlled Program Run in Stand Alone
				MAST (SO-M)	Sound-controlled Program Run as Master
		DISP	VALU	D-00 ~ D-30 (DXXX)	Display the DMX 512 value of each channel
			RDIS	ON/OFF	Reverse display
			CLDI	ON/OFF	Shut off LED display
1	LAMP	OPEN	ON/OFF	Lamp on/off	
		ONLI	ON/OFF	Lamp on/off via controller	
		DELA	D-00 ~ D-59, D-15	Delay lamp on	
2	SET	RPAN	ON/OFF	Pan Reverse	
		RTIL	ON/OFF	Tilt Reverse	
		16BI	ON/OFF	Switch 16 bit/8 bit	
		REST	ON/OFF	Reset	
		LODA	ON/OFF	Restore factory settings	
		VER	V-1.0~V-9.9	Software version	
3	ADJU	LADJ	ON/OFF	Lamp adjustment	
		TEST	T-01 ~ T-30	Test function of each channel	
4	TIME	MATI	0000~9999 (hours)	Fixture running time	
		LATI	0000~9999 (hours)	Lamp running time	
		CLMT	ON/OFF	Clear fixture time	
		CLLT	ON/OFF	Clear lamp time	
5	EDIT	STEP	S-01 ~ S-48	Steps of Program Run	
		SC01 ~ SC48	C-01 ~ C-30	01XX (00~FFH) 30XX (00~FFH)	Edit the channels of each scene
			TIME (sec.)	I -- X (1~9)	Time for each scene
		CNIN	ON/OFF	Edit program via controller	

Main functions

MODE - JAMP - SET - ADJU - EINE - Ed It

MODE - Main menu 0

MODE - ADDR

RUN

DISP

1. Press [ENTER] for 3 seconds to enter the main menu "MODE" (display flashing)
2. Press [ENTER] and select "ADDR", "RUN" or "DISP" by pressing [UP] button.
3. Press [ENTER] for selecting the desired sub menu.

ADDR - DMX address setting, Slave setting

MODE - ADDR - VALU - ADD-AST

SLAV - ON/OFF

EBOC - ON/OFF

VALU - DMX address setting

With this function, you can adjust the desired DMX-address via the Control Board.

1. Select "VALU" by pressing [UP] button.
2. Press [ENTER], adjust the DMX address by pressing [UP] or [DN].
3. Press [ENTER] to confirm.
4. Press [EXIT/DN] in order to return to main menu.

SLAV - Slave setting

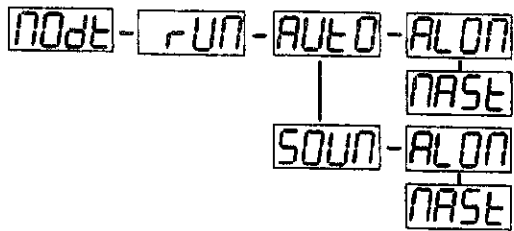
With this function, you can define the device as slave.

1. Select "SLAV" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't.
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

EBOC - No functions

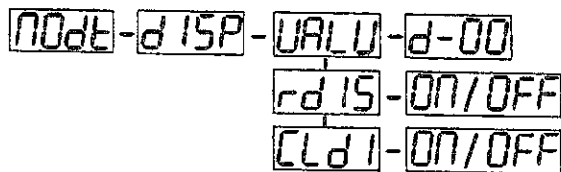
RUN - Program Run, Master setting

With the function "RUN", you can run the internal program. You can set the number of steps under Step. You can edit the individual scenes under Edit. You can run the individual scenes either automatically (AUTO), i.e. with the adjusted Step-Time or sound-controlled (SOUN). The selection "ALON" means Stand Alone-mode and "MAST" that the device is defined as master.



1. Select "AUTO" or "SOUN" by pressing [UP].
2. Press [ENTER] for selecting the desired extension menu.
3. Select "ALON" or "MAST" by pressing [UP].
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

DISP - Display the DMX-value, Reverse display, Shut off LED display



VALU - Display the DMX 512 value of each channel

With this function you can display the DMX 512 value of each channel.

1. Select "VALU" by pressing [UP].
2. Press [ENTER] to confirm; the display shows "D-00". In this setting, the DMX-adjustment of every channel will be displayed.
3. Press [UP] in order to select the desired channel. If you select "D-14" the display will only show the DMX-value of the 14th channel.
4. Press [ENTER] to confirm.
5. The display shows "D-XX", "X" stands for the DMX-value of the selected channel.
6. Press [ENTER] or [EXIT/DN] to exit.

rDIS - Reverse display

With this function you can rotate the display by 180°.

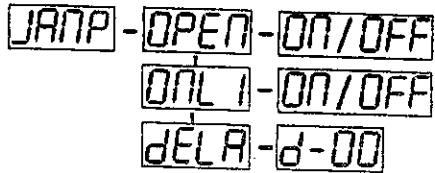
1. Select "rDIS" by pressing [UP].
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't; the display will rotate by 180°.
4. Press [ENTER] or [EXIT/DN] to exit.

CLDI - Shut off LED display

With this function you can shut off the LED display after 2 minutes.

1. Select "CLDI" by pressing [UP].
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't.
4. Press [ENTER] or [EXIT/DN] to exit.

JANP - Main menu 1



1. Press [ENTER] for 3 seconds to enter the main menu (display flashing).
2. Press [UP] to select "LAMP".

OPEN - Lamp on/off

With this function you can switch the lamp on or off via the Control Board.

1. Select "OPEN" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to switch on the lamp or "OFF" if you wish to switch off the lamp.
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

ONL 1 - Lamp on/off via external controller

With this function you can switch the lamp on or off via an external controller.

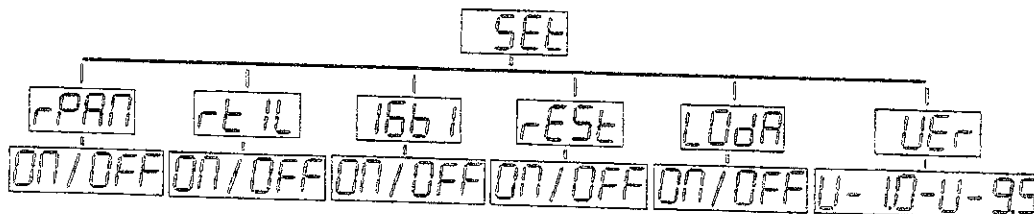
1. Select "ONL1" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't.
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

DELA - Delay lamp on

With this function you can delay the lamp ignition.

1. Select "DELA" by pressing [UP] button.
2. Press [ENTER] to confirm; the display shows "D-00". In this setting, the lamp will be ignited immediately.
3. Press [UP] to select the desired delay between "00" and "59" minutes. If you select "D-03" the lamp will be ignited after 3 minutes.
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

SET - Main menu 2



1. Press [ENTER] for 3 seconds to enter the main menu (display flashing).
2. Press [UP] to select "SET".

rPAN - Pan Reverse

With this function you can reverse the Pan-movement.

1. Select "rPAN" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't.
4. Press [ENTER] or.

rTIL - Tilt Reverse

With this function you can reverse the Tilt-movement.

1. Select "rTIL" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't.
5. Press [ENTER] or [EXIT/DN] to exit.

16b1 - Switch 16 bit/8 bit

With this function you can switch the device from 16 bit to 8 bit resolution.

1. Select "16BI" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" in order to set 16 bit, or "OFF" in order to set 8 bit. The channels PAN Fine and TILT Fine will be disabled.
4. Press [ENTER] or [EXIT/DN] to exit.

rEST - Reset

With this function you can Reset the device via the Control Board.

1. Select "rEST" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't.
4. Press [ENTER] or [EXIT/DN] to exit.

LOdA - Restore factory settings

With this function you can restore the factory settings of the device. All settings will be set back to the default values (shaded). Any edited scenes will be lost.

1. Select "LOdA" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't.
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

UEr - Software version

With this function you can display the software version of the device.

1. Select "VER" by pressing [UP] button.
2. Press [ENTER], the display shows "V-X.X", "X.X" stands for the version number, e.g. "V-1.0", "V-2.6".
3. Press [ENTER] or [EXIT/DN] in order to return to the main menu.

AdJU - Main menu 3

ADJU - LAdj - ON/OFF
tEst - E-01-E-30

1. Press [ENTER] for 3 seconds to enter the main menu (display flashing).
2. Press [UP] to select "ADJU".

LAdj - Lamp adjustment

With this function you can adjust the lamp via the Control Board. The shutter opens and the lamp can be adjusted. In this mode, the device will not react to any control signal.

1. Select "LAdj" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't.
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

tEst - Test function of each channel

With this function you can test each channel on its (correct) function.

1. Select "tEst" by pressing [UP] button.
2. Press [ENTER], the display shows "T-XX", "X" stands for the channel number.
3. The current channel will be tested.
4. Select the desired channel by pressing [UP] button.
5. Press [ENTER] or [EXIT/DN] to exit.

EINE - Main menu 4

EINE - MATI - 0000-9999
LAE 1 - 0000-9999
CLAE - ON/OFF
CLLE - ON/OFF

1. Press [ENTER] for 3 seconds to enter the main menu (display flashing).
2. Press [UP] to select "TIME".

MATI - Fixture running time

With this function you can display the running time of the device.

1. Select "MATI" by pressing [UP] button.
2. Press [ENTER], the display shows "XXXX", "X" stands for the number of hours.
3. Press [ENTER] or [EXIT/DN] to exit.

LAE 1 - Lamp running time

With this function you can display the running time of the lamp.

1. Select "LAE 1" by pressing [UP] button.
2. Press [ENTER], the display shows "XXXX", "X" stands for the number of hours.
3. Press [ENTER] or [EXIT/DN] to exit.

CLNE - Clear fixture time

With this function you can clear the running time of the device.

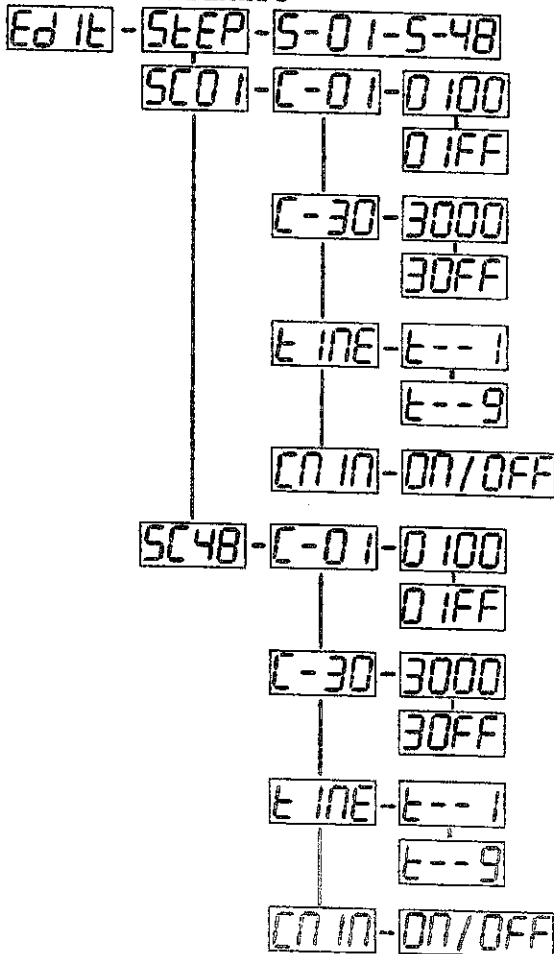
1. Select "CLMT" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't.
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

CLLE - Clear lamp time

With this function you can clear the running time of the lamp. Please clear the lamp time every time you replace the lamp.

1. Select "CLLT" by pressing [UP] button.
2. Press [ENTER], the display shows "ON" or "OFF".
3. Press [UP] to select "ON" if you wish to enable this function or "OFF" if you don't.
4. Press [ENTER] to confirm.
5. Press [EXIT/DN] in order to return to the main menu.

Ed It - Main menu 5



1. Press [ENTER] for 3 seconds to enter the main menu (display flashing).
2. Press [UP] to select "EDIT".

STEP - Define the number of steps in Run

With this function you can define the number of steps in the Program Run.

1. Select "STEP" by pressing [UP] button.
2. Press [ENTER], the display shows "S-XX", "X" stands for the total amount of steps you want to save, so you can call up to 48 scenes in "RUN". For example if the "XX" is 05, it means that "RUN" will run the first 5 scenes you saved in "EDIT".
3. Press [ENTER] to save and exit.

SC01 - Editing the channels of the individual scenes

With this function you can edit the program to be called up in Run.

a) Editing via the Control Board

1. Select "SC01" by pressing [UP] button.
2. Press [ENTER], the display shows "SCXX", "X" stands for the scene no. to be edited.
3. Change the scene no. by pressing [UP].
4. Press [ENTER], the display shows "C-X", "X" stands for the channel no. Such as "C-01", it means you are editing channel 1 of the selected scene.
5. Select the channel no. you would like to edit by pressing

[UP].

6. Press [ENTER] to enter editing for the selected channel, the fixture reacts to your settings. The display shows the DMX value of the edited channel. Such as "11XX", it stands for in the channel 11 of the editing scene, the

DMX value is XX, XX is a hexadecimal number value "01-FF".

7. Adjust the desired DMX value by pressing [UP] or [DN].
8. Press [ENTER] in order to edit other channels of this scene.
9. Repeat steps 5-9 until you finish setting all the DMX values for all channels of this scene.
10. Once all the channels completed, the display will flash "tIME"
11. Press [ENTER] to edit the time needed, the display shows "t-X", "X" stands for the time needed to run the current scene, value "1-9". For example, "t-2" means you need 2 seconds to run the current scene.
12. Adjust the desired time by pressing [UP].
13. Press [ENTER] to save the settings for the scene you are editing, the display will change to the next scene automatically.
14. Repeat step 3-14 to edit and other scenes, you can edit and save a maximum of 48 scenes.
15. Press [EXIT/DN] to exit. The number of steps can be defined under "STEP" and the scenes can be called up under "RUN"

b) Editing via the external controller

Call up the first scene in your controller now.

1. Select "SC01" by pressing [UP] button.
2. Press [ENTER], the display shows "SC01".
3. Press [ENTER], the display shows "C-01".
4. Select "CNIN" by pressing [UP].
5. Press [ENTER], the display shows "OFF".
6. Press [UP], the display shows "ON".
7. Press [ENTER], the display shows "SC02". You successfully downloaded the first scene.
8. Adjust the Step-time as described above under point 12.
9. Call up the second scene in your controller now.
10. Repeat steps 5-11 until all desired scenes are downloaded.
11. Press [EXIT/DN] to exit. The number of steps can be defined under "STEP" and the scenes can be called up under "RUN"

INSTRUCTIONS ON USE:

The moving head is controlled by 14 DMX channels :

CHANNEL FUNCTION (VER2.6)														
%	1 Pan	2 Tilt	3 Strob	4 Color	5 Fix Gobos	6 Gobo	7 Gobo Rotation	8 Prism Marco	9 Focus	10 Dimming	11 Speed	12 Auto Program	13 Pan High Resolution	14 Tilt High Resolution
100%								MARCO16 : MARCO8 : MARCO1 : Prism			Blackout by moving Blackout by gobo2 Blackout by gobo1 Blackout by color Max Min Moving speed Max	Normal LAMP SWITCH OFF Program 8 Program 7 Program 6 Program 5 Program 4 Program 3 Program 2 Program 1 MOTOR RESET LAMP SWITCH ON Color any position Normal		
75%			RANDOM STROBE											
50%					GOGO SHAKE		Stop							
25%			Active channel 10											
0%							GOGO INDEXING							

- CHANNEL 1 : pan movement (max. 630°)
- CHANNEL 2 : tilt movement (max. 265°)
- CHANNEL 3 : select strobe (0-15Hz), dimming and shutter close/open function + random strobe
- CHANNEL 4 : select one of the 9 colors, color cycle or rainbow effect
- CHANNEL 5 : select one of the 7 gobo's + open or gobo cycle + gobo shake
- CHANNEL 6 : select one of the 6 gobo's + open or gobo cycle
- CHANNEL 7 : select gobo rotation speed and direction + gobo index
- CHANNEL 8 : Electronic focus adjustment
- CHANNEL 9 : select prism or normal lens + prism rotation and speed, more 16 prism macro
- CHANNEL 10 : Dimmer control 0-100% (only active when CHANNEL 3 is between position 32 -63)
- CHANNEL 11 : speed pan/tilt movement, blackout selection
- CHANNEL 12 : auto program control + lamp on, motor reset, lamp switch off
- CHANNEL 13 : 16 bit pan movement
- CHANNEL 14 : 16 bit tilt movement

DMX channel's function and values:(VER2.8)

Channel 1 - PAN movement 8bit

Channel 2 - TILT movement 8bit

Channel 3 - Shutter, strobe

- 0-31 Shutter closed
- 32-63 Dimmer control (shutter open)
- 64-159 Strobe effect slow to fast
- 160-191 No function (shutter open)
- 192-223 Random strobe effect slow to fast
- 224-255 No function (shutter open)

Channel 4 - Color Wheel 1

- 0-13 Open / white
- 14-27 Red
- 28-41 Blue
- 42-55 Yellow
- 56-69 Purple
- 70-83 Green
- 84-97 Orange
- 98-111 Magenta
- 112-128 Aqua Green
- 128-187 Forwards rainbow effect from fast to slow
- 188-193 No rotation
- 194-255 Backwards rainbow effect from slow to fast

Channel 5 - Fixed Gobos

0-13	Open/hole
14-27	Gobo 1
28-41	Gobo 2
42-55	Gobo 3
56-69	Gobo 4
70-83	Gobo 5
84-97	Gobo 6
98-111	Gobo 7
112-127	Gobo 1 shake slow to fast
128-143	Gobo 2 shake slow to fast
144-159	Gobo 3 shake slow to fast
160-175	Gobo 4 shake slow to fast
176-191	Gobo 5 shake slow to fast
192-207	Gobo 6 shake slow to fast
208-223	Gobo 7 shake slow to fast
224-255	Gobo wheel rotation from slow to fast

Channel 6 - Rotating gobos, cont. rotation

0-31	Open
32-63	Rot. gobo 1 (glass)
64-95	Rot. gobo 2 (metal)
96-127	Rot. gobo 3 (metal)
128-159	Rot. gobo 4 (glass)
160-191	Rot. gobo 5 (metal)
192-223	Rot. gobo 6 (metal)
224-255	Rot. gobo wheel cont. rotation slow to fast

Channel 7 - Rotating gobo index, rotating gobo rotation

0-127	Gobo indexing
128-187	Forwards gobo rotation from fast to slow
188-191	No rotation
192-255	Backwards gobo rotation from slow to fast

Channel 8 - Focus

0-255	Continuous adjustment from far to near
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Channel 9 - 3 facet rotating prism, Prism / Gobo macros

0-3	open
4-63	Forwards rotation from fast to slow
64-67	No rotation
68-127	Backwards rotation from slow to fast

128-135	Macro 1
136-143	Macro 2
144-151	Macro 3
152-159	Macro 4
160-167	Macro 5
168-175	Macro 6
176-183	Macro 7
184-191	Macro 8
192-199	Macro 9
200-207	Macro 10
208-215	Macro 11
216-223	Macro 12
224-231	Macro 13
232-239	Macro 14
240-247	Macro 15
248-255	Macro 16

Channel 10 - Dimmer (intensity)

0-255 Intensity 100 to 0%

Channel 11 - Speed pan/tilt movement

0-14	max speed
15-127	max to min speed
128-159	blackout by color changing
160-191	blackout by Rotating gobos changing
192-223	blackout by Fixed Gobos changing
224-255	blackout by movement

Channel 12 - Lamp on/off, reset, internal programs

0-19	No function
20-39	Lamp on
40-59	Motor reset
60-79	Internal program 1
80-99	Internal program 2
100-119	Internal program 3
120-139	Internal program 4
140-159	Internal program 5
160-179	Internal program 6
180-199	Internal program 7
200-219	Internal program 8
220-239	Lamp switch off
240-255	No function

Channel 13 - Pan fine

Channel 14 - Tilt fine

ERROR MESSAGE

When you turn on the fixture, it will make a reset first. The display may show "Xer" while there are problems with one or more channels. "XX" stands for channel 1,2,3,5,6,7 who has the testing sensor for positioning . For example, when the display shows "02Er", it means there is some error in channel 2. If there are some errors on channel 1, channel 2, channel 5 at the same time, you may see the error message "01Er", "02Er", "05Er" flash repeated for 5 times, and then the fixture will generate a reset signal, all the stepper reset. If the fixture remain error message after performing reset more than 3 times, it will detect whether the fixture has more than 3 errors. If the fixture has more than 3 errors (including 3 errors), all the channels can not work properly; but if the fixture has less than 3 errors, only the channels which have errors can not work properly, others can work as usual.

01Er:

(PAN-yoke movement error) This message will appear after the reset of the fixture if the yoke's magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The yoke is not located in the default position after the reset.

02Er:

(TILT-head movement error) This message will appear after the reset of the fixture if the head's magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driving IC on the main PCB). The head is not located in the default position after the reset.

04Er:

(Color-wheel error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its drive circuit on the main PCB). The color wheel is not located in the default position after the reset.

05Er:

(Fix Gobo-wheel error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its drive circuit on the main PCB). The fix gobo wheel is not located in the default position after the reset.

06Er:

(Rotating gobo-wheel error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunctions(sensor failed or magnet missing) or the stepping-motor is defective (or its drive circuit on the main PCB). The rotating gobo-wheel is not located in the default position after the reset.

07Er:

(Rotating gobo indexing error) This message will appear after the reset of the fixture and if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The rotating gobo is not located in the default position after the reset.

09Er:

(Prism-wheel error) This message will appear after the reset of the fixture and if the magnetic-indexing circuit malfunctions (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The rotating gobo is not located in the default position after the reset.

CLEANING AND MAINTENANCE

The following points have to be considered during the inspection:

- 1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
 - 2) There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
 - 4) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
 - 5) The electric power supply cables must not show any damage, material fatigue or sediments.
- Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.



CAUTION

Disconnect from mains before starting maintenance operation.

We recommend a frequent cleaning of the device. Please use a moist, lint-free cloth. Never use alcohol or solvents.

There are no serviceable parts inside the device except for the lamp. Please refer to the instructions under "Installation instructions".

Should you need any spare parts, please order genuine parts from your local dealer.

TECHNICAL SPECIFICATIONS

Power supply :

110VAC,50Hz; 120VAC, 50Hz; 220VAC,50Hz; 230VAC,50Hz; 240VAC, 50Hz;
 110VAC,60Hz; 120VAC,60Hz; 220VAC,60Hz; 230VAC,60Hz; 240VAC,60Hz;

Power consumption : max. 400W

Lamp : MSD250/2-GY9.5-socket; Metal Halide

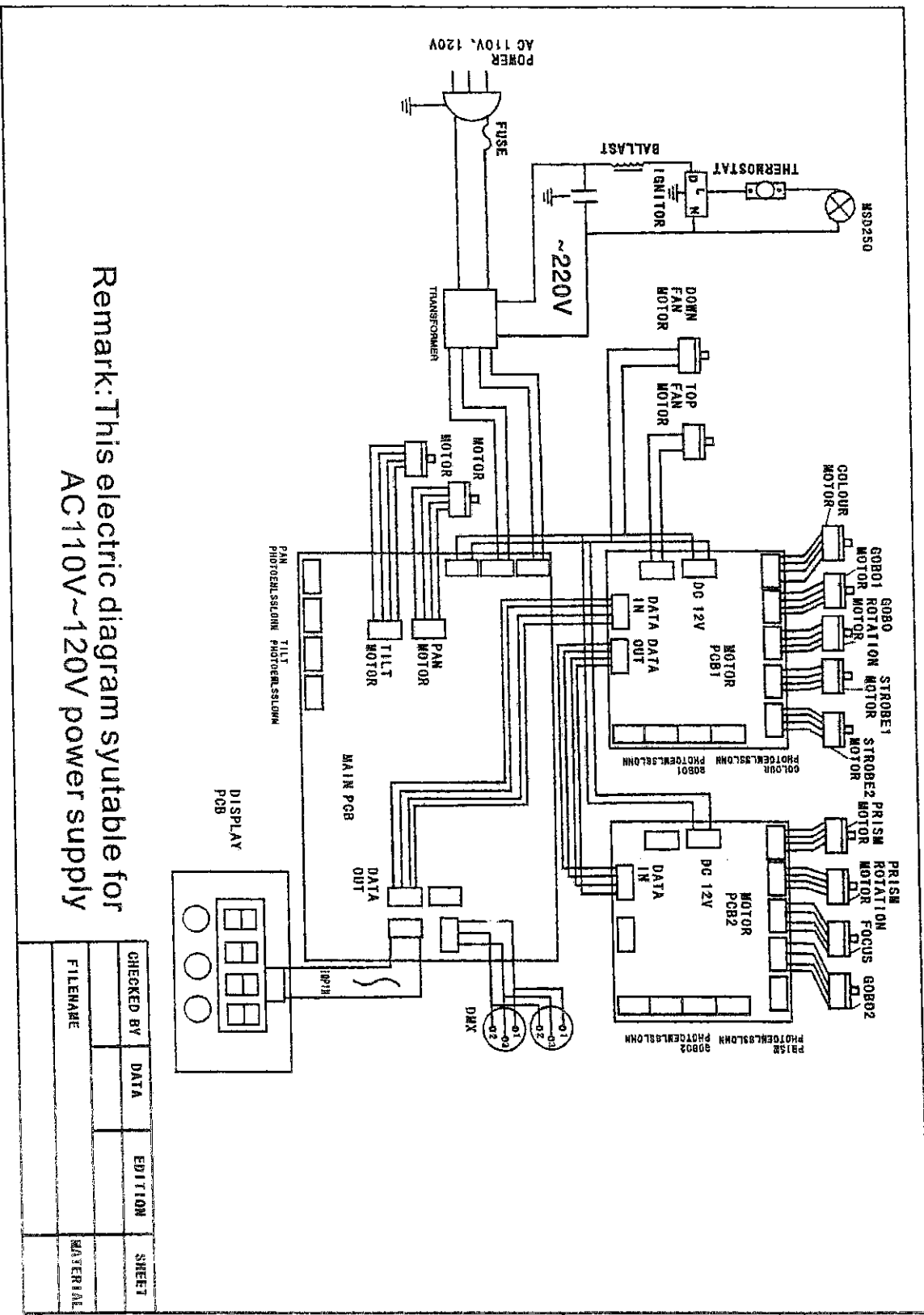
Motors : 11 micro motors

Packing dimensions : 66 x 56 x 52 cm

Net weight : 23 KGS; 25 KGS;

Gross weight: 27 KGS; 29 KGS;

Remark : errors and omissions for every information given in this manual excepted. All information is subject to change without prior notice.



Remark: This electric diagram is suitable for AC 110V ~ 120V power supply

CHECKED BY	DATA	EDITION	SHEET
FILENAME			MATERIAL