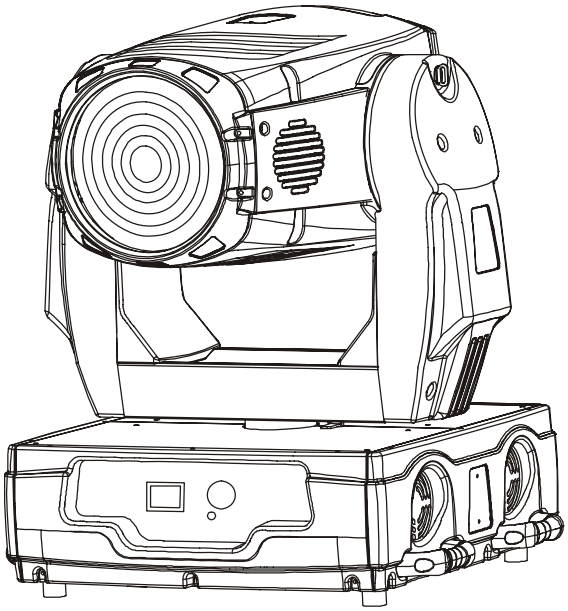
PROFESSIONAL MOVING HEAD USER'S MANUAL

V1200W



KEEP THIS MANUAL FOR FUTURE NEEDS CE

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

CAUTION

Keep this device away from rain and moisture !

Unplug mains lead before opening the housing.

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

- Pan 540°, tilt 265°
- Colors:
  - Color wheel 1 with 4 correction-filter.
  - Color wheel 2 with 4 discrete dichroic filters.
  - The color wheel 2 can be individually equipped with colours/gobos
- CMY colour mixture for indefinite colour variations
- Rainbow-effect with adjustable speed in both directions
- Variable colour temperature correction via CTO-filter
- Strobe effect: 1~13 flashes per second or random strobe
- Stepless zoom
- Automatic program
- Display: digital address and function setting
- High speed pan & tilt movements
- Control board with LCD-display and encoder for adjusting the DMX-starting address, Pan/Tilt-Reverse, program, reset, lamp on/off, operating hours
- Lamp switches ON/OFF locally
- Auto test for all functions
- Value of each DMX-channel can be displayed

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 1 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.

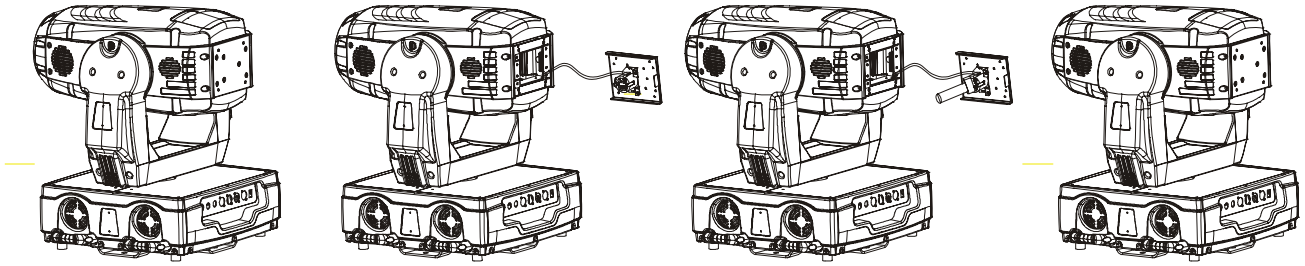
INSTALLATION INSTRUCTIONS

a) Installing or replacing the lamp

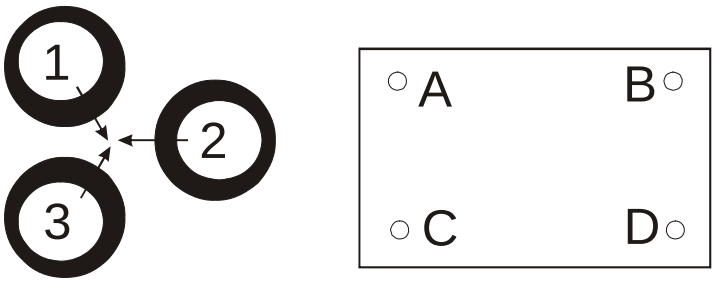
Do not install lamps with a higher wattage. They generate higher temperatures than which the device was designed for.

For the installation, you need one; MSR 1200 SA/DE

Procedure:



1) Unscrew the 4 screws marked A, B, C and D on the back of the housing, holding the plate where the lamp is underneath.
2) Gently pull the socket holder of the lamp housing in the middle.
3) 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 4 screws.
4) 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-turn the position of the lamp to get the maximum light output as shown below.



b) Mounting the device

CAUTION

Please consider the EN 60598-2-17 and the other respective national norms during the installation. The installation must only be carried out by a qualified person.

- 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.

CAUTION

Before taking into operation for the first time, the installation has to be approved by an expert.

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.

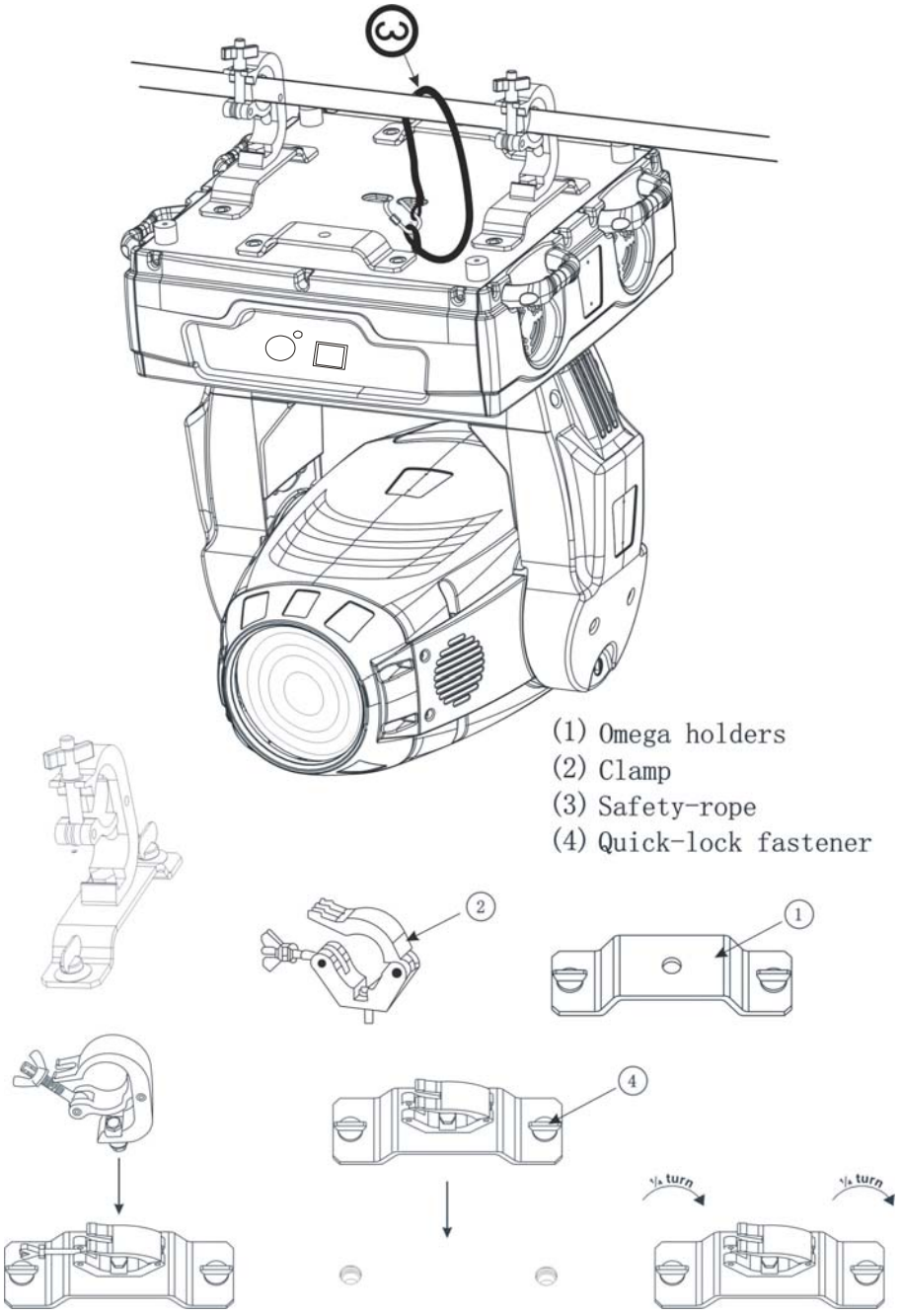
CAUTION

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.

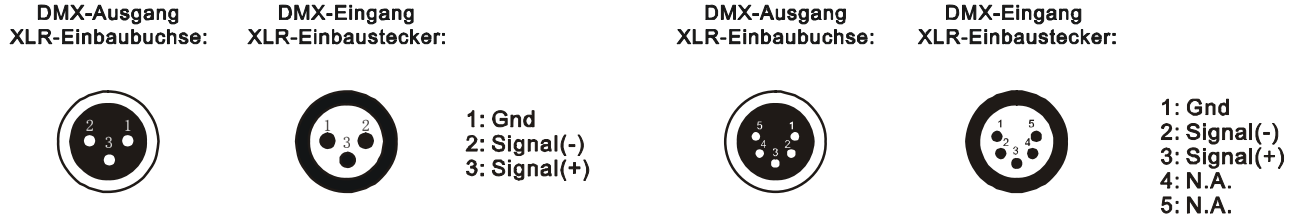
installation via the Omega holders



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.

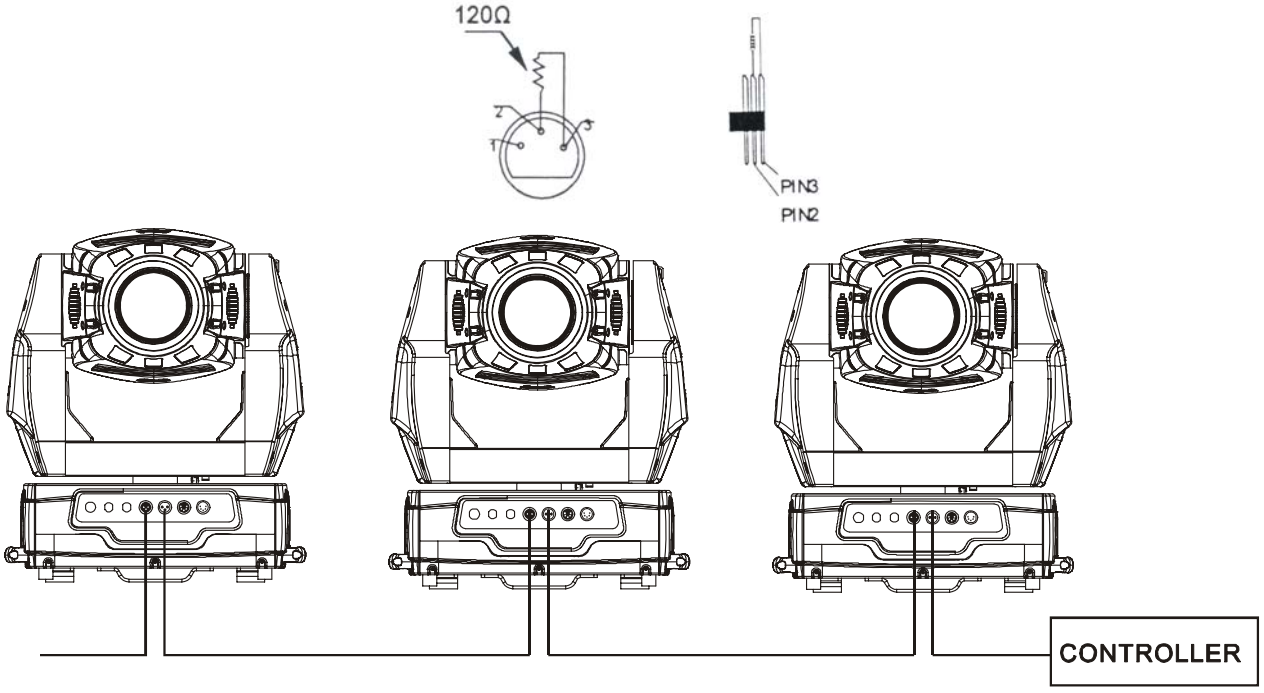
DMX-512 control connection

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-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.

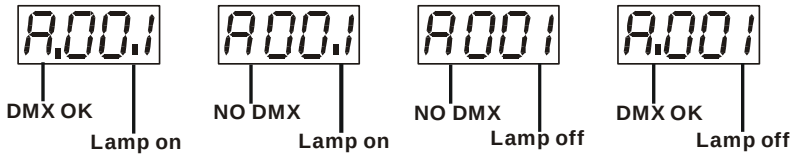
You can set the same starting address for all fixtures or a group of fixtures, or make different address

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 17 channel fixture, you should set the starting address of the first unit to 1, the second unit to 18 (17 + 1), the third to 35 (18 + 17), and so on.

Note:
The modes of DMX 512 data and lamp are shown via the display:



1. After switching on, the device will automatically detect whether DMX 512 data is received or not. If the data is received, the the display will show **"A.001"** with the actually set address. If there is no data received at the DMX-input, the display will flash **"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 device.
- the controller is switched off or defective, if the cable or connector is defective or the signal wires are swap in the input connector.

It’s necessary to insert the XLR termination plug (with 120 Ohm) in the last lighting in the link in order to ensure proper transmission on the DMX data link.

2. If the lamp is on, the display will show **"A00.1"** with the actually set address. If the lamp is off, the the display will show **"A001"** with the actually set address.

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 Mode/Esc-button until the display is lit. Browse through the menu by turning the encoder. Press the encoder in order to select the desired menu. You can change the selection by turning the encoder. Press the encoder in order to confirm. You can leave every mode by pressing the Mode/Esc-button. The functions provided are described in the following sections.

Default settings shaded

	Main menu	Sub menu	Display	Function
Function Mode	Set DMX address			DMX address setting
	Value display			DMX value display
	Set to Slave			Slave setting
	Auto program			Auto program
	Music control			Music control
Information	Time information	Power on time	XXXX	Individual fixture running time
		Machine on time	XXXX	Fixture running time
		Lamp on time	XXXX	Lamp running time
		Lamp off time	XXXX	Lamp off time
		Clear Lamp time	ON/OFF	Clear lamp time
	Temp. Info.	System Temp	XX° C	Ambient temperature
		Inside Head Temp	XXX° C	Inside temperature
	Product Info.	Unit model		Unit model Unit code Company WEB Company Tel
		Unit code		
		Company WEB		
		Company Tel		
	Software version	IC01-Ver 1.0... ICXX-Ver 9.9		Software version of each IC
Personality	Effect Set	Pan Reverse	ON/OFF	Reverse movement
		Tilt Reverse	ON/OFF	
		Blackout moving	ON/OFF	Blackout while PAN/TILT moving or color wheel moving
		Blackout colors	ON/OFF	
		Scan fine select	ON/OFF	
	Status choose	Addr. set online	ON/OFF	Add. via DMX
		Master or Alone	Master/Alone	Master/Alone switch
		Auto if no DMX	ON/OFF	Auto run if no DMX
		Music if no DMX	ON/OFF	Music contr. /no DMX
	Lamp control	Lamp on or off	ON/OFF	Lamp on/off
		Lamp on by power on	ON/OFF	Lamp on/off / Power
		Lamp on via DMX	ON/OFF	Lamp on via DMX
		Lamp off via DMX	ON/OFF	Lamp off via DMX
		Lamp off if no DMX	ON/OFF	Lamp off if no DMX
		Lamp on at temp.	XX	Lamp restart at temp.
		Lamp off at temp.	XX	Lamp off at temp.
		Auto Fans Speed	ON/OFF	Fans Speed Adjust
	Display set	Display close time	05 M, 02-59	Display shutoff time
		Display intensity	20~99%	LCD brightness
	Init effect	PAN Moving : Save and run	PAN Moving=XXX : (“Please wait...”)	Initial effect position
	Mic sensitivity	0~99%		Sensitivity of Mic.
	Reset default	ON/OFF		Restore factory sett.

Reset function	Reset All Reset Scan Reset Colors Reset Shutter Reset Others				Reset all motors Reset only Pan/Tilt Reset only colors Reset only shutter and/or dimmer Reset other motors
Effect Adjust	Test channel	PAN Moving…			Test function
	Lamp adjustment	PAN Moving : Save Active	PAN Moving=XXX : (“Please wait...”)		Lamp adjustment
	Wheel adjustment	Color wheel : Save and run	Color wheel=XXX : (“Please wait...”)		Wheel adjustment
User’s Mode Set	User mode	User A seetings User B settings User C settings			User’s mode to change channel numbers
	Preset User mode	PAN : Save and run	PAN = CH NO.01 : (“Please wait...”)		Preset User modes
Edit Program	Select Programs	Program 1 : Program 10			Select programs to be run
	Edit program	Program 1 : Program 10	Program Test Start step End step	(“STEP XX”) Start step=xxx End step=xxx	Testing program Program in loop Save and exit
	Edit scenes	Edit Scene 001 : Edit Scene 250	Input by outside Save and Active Scene Time Pan,Tilt, ...	 TIME=XX.XS Pan=xxx,	Save and automatically return manual scenes edit
	Auto scenes Rec.	XX~XX			Automat. scenes rec

Function Mode

➢ DMX address setting

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

- Select **“Set DMX address“** via the encoder.
- Press the encoder, adjust the DMX address by turning the encoder.
- Press the encoder to confirm.
- Press the Mode/Esc-button in order return to the main menu.

➢ Display the DMX 512 value of each channel

With this function you can display the DMX 512 value of each channel. The display automatically shows the channel with a value changing.

➢ Slave setting

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

➢ Auto Program

With this function, you can run the internal program. You can select the desired program under **“Select program”**. You can set the number of steps under **“Edit program”**. You can edit the individual scenes under **“Edit scenes”**. With this function, you can run the individual scenes either automatically, i.e. with the adjusted Step-Time.

➢ Music control

With this function, you can run the internal program sound-controlled.

Information

➢ Time information

Power on time

With this function, you can display the temporary running time of the device from the last power on. The display shows“XXXX”, “X“ stands for the number of hours. The counter is resetted after turning the device off.

Machine on time

With this function, you can display the running time of the device. The display shows“XXXX”, “X“ stands for the umber of hours.

Lamp on time

With this function, you can display the running time of the lamp. The display shows“XXXX”, “X“ stands for the number of hours.

Lamp off time

With this function, you can display the temporary running time of the lamp from the last lamp on. The display shows“XXXX”, “X“ stands for the number of hours. The counter is resetted after turning the lamp off.

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.

- Select **“Clear lamp time”** by turning the encoder.
- Press the encoder, the display shows “ON” or “OFF”.
- Press the encoder to confirm.
- Press the Mode/Esc-button in order to return to the main menu.

➢ Temp. Info.

System Temp

With this function you can display the temperature in the projector base (near LCD-display) in Celsius.

Inside head Temp

With this function you can display the temperature in the projector-head (near CMY-filter) in Celsius.

➢ Product Info.

Within this menu, you can find the data concerning the type, serial number, Internet and phone number.

➢ Software version

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

- Select **“Software version”** by turning the encoder.
- Press the encoder, the display shows **“V-X.X”**, **“X.X”**stands for the version number, e.g. “V-1.0”, “V-2.6”.
- Turn the encoder in order to read the version of every individual IC.
- Press the Mode/Esc-button in order to return to the main menu.

Personality

➢ Effect set

Pan Reverse

With this function you can reverse the Pan-movement.

Tilt Reverse

With this function you can reverse the Tilt-movement.

Blackout with movement

With this function, you can switch the DMX-function Blackout with Pan/Tilt-movement (DMX-channel 3,values 226-235) on or off.

Blackout with colors
With this function, you can switch the DMX-function Blackout with colour-change (DMX-channel 3, values 236-245) on or off.

➢ Status choose

Address set online
With this function, you can adjust the desired DMX-address via an external controller.
• Select **"Address set online"** by turning the encoder.
• Press the encoder, the display shows "ON" or "OFF".
• Turn the encoder to select "ON" if you wish to enable this function or "OFF" if you don't.
• Press the encoder to confirm.
• Press the Mode/Esc-button in order to return to the main menu.
• On the controller, set the DMX-value of channel 1 to "7".
• Set the DMX-value of channel 2 to "7"or "8". When set to "7" you can adjust the starting address between 1 and 255. When set to "8" you can adjust the starting address between 256 and 511.
• Set the DMX-value of channel 3 to the desired starting address. If you want to set the starting address to 57, set channel 1 to "7", channel 2 to "7" and channel 3 to "57". If you want to set the starting address to 420,set channel 1 to "7", channel 2 to "8" and channel 3 to "164" (256+164=420).
• Wait for approx. 20 seconds and the unit will carry out a reset. After that, the new starting address is set.

Master or Alone
With this function, you can set the status of the internal program run. The selection "Alone" means Stand Alone-mode and "Master" that the device is defined as master.

➢ Lamp control

Lamp on/off
With this function you can switch the lamp on or off via the Control Board.
• Select **"Lamp on/off"** by turning the encoder.
• Press the encoder, the display shows**"ON"** or **"OFF"**.
• Turn the encoder to select **"ON"** if you wish to strike the lamp or **"OFF"** in order to switch it off.
• Press the encoder to confirm.
• Press the Mode/Esc-button in order to return to the main menu.

Lamp on/off by power on
With this function you can select if the the lamp will be switched on when switching the power on. Select **"ON"** by turning the encoder if you wish to enable this function or **"OFF"** if you don't.

Lamp on via external controller
With this function you can select if you can switch the lamp on via an external controller (DMX-channel 22,value 64-79). Select **"ON"** by turning the encoder if you wish to enable this function or **"OFF"** if you don't.

Lamp off via external controller
With this function you can select if you can switch the lamp off via an external controller (DMX-channel 22,value 224-239). Select **"ON"** by turning the encoder if you wish to enable this function or **"OFF"** if you don't.

Lamp Off if no DMX
With this function you can select to switch off the lamp off automatically if there is no DMX signal). Select **"ON"** by turning the encoder if you wish to enable this function or **"OFF"** if you don't.

Lamp on at temp.
With this function you can set the inside temperature from which the projector will restrike the lamp after automatic lamp shutoff.

Lamp off at temp.
With this function you can set the inside temperature at which the projector will automatically switch the lamp off. Turn the encoder to select the maximum inside temperature betwwen 60° C an d159° C. Inside temperatures below 90° C are

not critical. 90° C and more should lead to the lamp being switched off. Please note that the outside temperature should not exceed 45° C.

➢ Display set

Display close time

With this function you can shut off the LED display after 2 to 59 minutes. Turn the encoder in order to select the desired shut off time.

Display intensity

With this function, you can adjust the display-intensity from 20 % to 99 %. Turn the encoder in order to select the desired intensity.

➢ Init effect

With this function, you can adjust with which value the respective channels will start.

➢ Mic sen sitivity

With this function, you can select the desired microphone sensitivity between 0 % and 99 %.

➢ 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.

Reset-functions

With this function you can Reset the device via the Control Board. You can select the different Resetfunctions by turning the encoder.

Effect Adjust

➢ Test function of each channel

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

➢ Lamp adjustment

With this function, you can adjust the lamp more easily. All effects will be canceled, the shutter opens and the dimmer intensity will be set to 100 %. With the individual functions, you can focus the light on a flat surface (wall) and perform the fine lamp adjustment.

➢ Wheel adjustment

With this function, you can calibrate and adjust the effect wheels to their correct positions.

Users mode set

➢ User mode

With this function, you can create user defined channel orders.

➢ Preset User mode

With this function, you can adjust the Prest user defined channel order.

Edit program

➢ Select program

With this function, you can select the program for the Program Run.

➢ Edit program
With this function, you can edit the internal programs.

➢ Edit scenes
With this function, you can edit the scenes of the internal programs.

➢ Auto scenes rec
The PHS-1200 features an integrated DMX-recorder by which you can transmit the programmed scenes from your DMX-controller to the PHS-1200. Adjust the desired scene numbers via the encoder (from – to).When you call up the scenes at your controller, they will automatically be transmitted to the PHS-1200.

INSTRUCTIONS ON USE:
DMX channel´s functions and their values (17 DMX channels):

Channel 1 - Cyan Color Wheel :

0-255 Cyan (0-white, 255-100% Cyan)

Channel 2 - Magenta Color Wheel :

0-255 Magenta (0-white, 255-100% magenta)

Channel 3 - Yellow Color Wheel :

0-255 Yellow (0-white, 255-100% Yellow)

Channel 4 - CTO Color Wheel :

0-255 CTO (0-white, 255-100% CTO)

Channel 5 - PAN movement 8bit :

Channel 6 - TILT movement 8bit :

Channel 7 - Speed pan/tilt movement:

0-225	max to min speed
226-235	blackout by movement
236-245	blackout by all wheel changing
246-255	no function

Channel 8 - Color Wheel:

0-24	Open / white
25-49	Color 1
50-74	Color 2
75-99	Color 3
100-127	Color 4
128-187	Forwards rainbow effect from fast to slow

188-193	No rotation
194-255	Backwards rainbow effect from slow to fast

Channel 9 - Color Wheel:

0-24	Open / white
25-49	Color 1
50-74	Color 2
75-99	Color 3
100-127	Color 4
128-187	Forwards rainbow effect from fast to slow
188-193	No rotation
194-255	Backwards rainbow effect from slow to fast

Channel 10 - Shutter, strobe:

0-31	Shutter closed
32-63	No function (shutter open)
64-95	Strobe effect slow to fast
96-127	No function (shutter open)
128-159	Pulse-effect in sequences
160-191	No function (shutter open)
192-223	Random strobe effect slow to fast
224-255	No function (shutter open)

Channel 11- Dimmer (intensity):

0-255	Intensity 0 to 100%

Channel 12 – Stepless Zoom

0-255	Zoom adjustment from small to big

Channel 13 - Speed Of CMY And Dimmer :

0-255	Speed Max －>Min

Channel 14 - Colour macros - CMY and colour wheel:

0-7	OFF	128-135	Macro16
8-15	Macro1	136-143	Macro17
16-23	Macro2	144-151	Macro18
24-31	Macro3	152-159	Macro19
32-39	Macro4	160-167	Macro20
40-47	Macro5	168-175	Macro21
48-55	Macro6	176-183	Macro22

56-63	Macro7
64-71	Macro8
72-79	Macro9
80-87	Macro10
88-95	Macro11
96-103	Macro12
104-111	Macro13
112-119	Macro14
120-127	Macro15
184-191	Macro23
192-199	Macro24
200-207	Macro25
208-215	Macro26
216-223	Macro27
224-231	Macro28
232-239	Macro29
240-247	Macro30
248-255	Random CMY

Channel 15– Lamp on/off, reset, internal programs:

0-19	colour change normal
20-39	colour change to any position
40-59	Lamp on
60-79	Lamp switch off
80-84	All motor reset
85-87	Scan motor reset
88-90	Colors motor reset
91-93	Gobo motor reset
94-96	Shutter & Dimmer motor reset
97-99	Other motor reset
100-119	Internal program 1 (secne1~8 of EEPROM)
120-139	Internal program 2 (secne9~16 of EEPROM)
140-159	Internal program 3 (secne17~24 of EEPROM)
160-179	Internal program 4 (secne25~32 of EEPROM)
180-199	Internal program 5 (secne33~40 of EEPROM)
200-219	Internal program 6 (secne41~48 of EEPROM)
220-239	Internal program 7 (secne49~56 of EEPROM)
240-255	Music Control (secne of Program 1)

Channel 16 – Pan fine 16bit

Channel 17– Tilt fine 16bit

ERROR MESSAGE

When you turn on the fixture, it will make a reset first. The display may show “XXer” 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:
(Cyan Color 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. The cyan color is not located in the default position after the reset.

02Er:
(Magenta Color error) This message will appear after the reset of the fixture if magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective.(or its driver circuit on the main PCB). The magenta color is not located in the default position after the reset.

03Er:
(Yellow Color error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The yellow color is not located in the default position after the reset.

04Er:
(CTO Color error) This message will appear after the reset of the fixture if the magnetic-indexing circuit malfunction (sensor failed or magnet missing) or the stepping-motor is defective (or its driver circuit on the main PCB). The CTO color is not located in the default position after the reset.

05Er:
(PAN 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 PAN is not located in the default position after the reset.

06Er:
(TILT 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 TILT-head is not located in the default position after the reset.

08Er:
(Color wheel 1 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 1 is not located in the default position after the reset.

09Er:
(Color wheel 2 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 2 is not located in the default position after the reset.

12Er
(Zoom 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 Zoom 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).

1) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
2) 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*:**
☐208VAC,50Hz;☐220VAC,50Hz; ☐230VAC,50Hz;☐240VAC,50Hz;
☐208VAC,60Hz; ☐220VAC,60Hz;☐230VAC,60Hz;☐240VAC,60Hz;
***Power consumption*:** max. 1500 W
***Lamp*:** MSR 1200 SA/DE
Motors: 16 micro motors
***Flight case dimensions*:** 65 x 60 x 72 cm
***Net weight*:** 58 KGS;
Gross weight: 63 KGS (Carton packing)

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