



*250 ELC*

# Instruction Manual

From Version 1.1



**GERMAN LIGHT  
PRODUCTS**

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## 1 Introduction

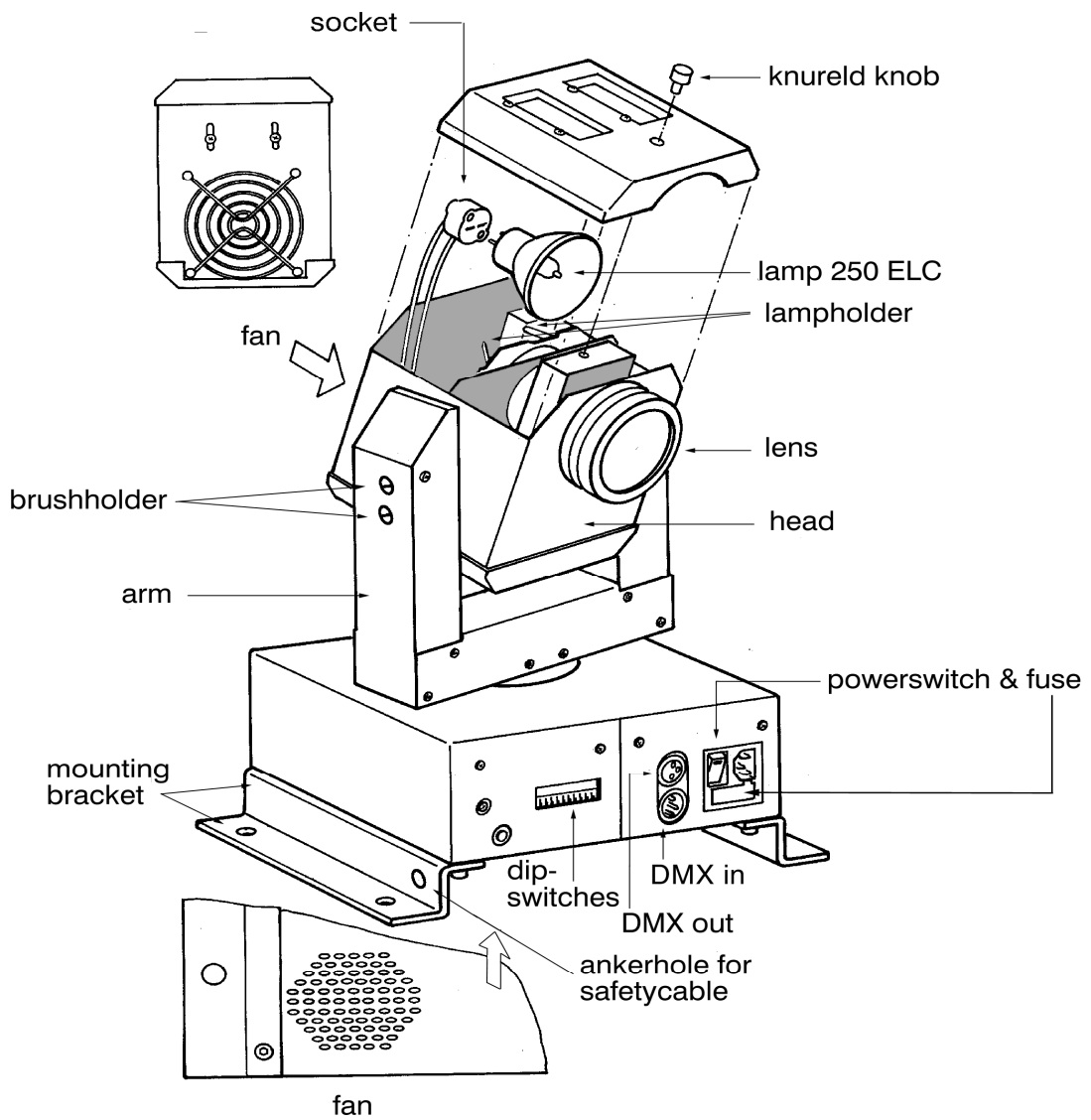


Illustration 1-1

## 1.1 Safety rules

The **Max** is a High-Tech Product. To guarantee a smooth operation, it is necessary to keep following rules.

1. Make sure that Head and Arm of the **Max**, can rotate without any mechanical problems and that all fan openings are clean and not blocked by anything.
2. Touching the head while moving can cause serious injuries.
3. Unplug the **Max** from the AC outlet before any service.
4. Wait at least 30 minutes after disconnecting the AC before you open the **Max**. Please do not touch the Bulb unless you are absolutely sure it is cold. -Danger of BURNING-.
5. For safe operation, follow the Installation guide described in chapter 2. Operating the **Max** without Safety cables or clamps/hooks can increase the risk of an accident.
6. The installation should be done by qualified personal only. You need to pay attention to the common rules of technology that are not explicitly mentioned in this manual.

## 2 Installation

### 2.1 Mounting

Mount clamps and/or hooks directly to the base plate.

Please make sure to use right sized clamps and hooks and fit them securely.

The **Max** is fully operational whether it stands, hangs or is mounted to the wall.

Using the **Max** standing on the ground requires a rough but even surface. Make sure that the fan openings are not blocked in any circumstance.

### 2.2 Secure the Max

Use always safety wires to secure the **Max**, connect them with the base plate (see Drawing 1-1 Chapter 1) and check for tight fit!

### 2.3 Connectors

#### 2.3.1 AC Connector

230/120 Volt, 50/60 Hz

Please see printing on the case for the right Power supply

#### 2.3.2 DMX

DMX 512 Standard input/output

Please see printing on the case for the right Pin usage.

### 2.4 Fuses



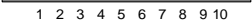


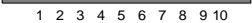


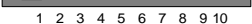
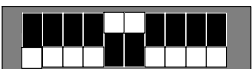
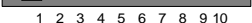

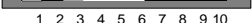
The **Max** electronic system is protected by 5x20 T3.15A fuse 250V, or 5x20 6.3AT fuse 120V. Please see the printing on the **Max** for more details look at the Drawing 1-1 at Chapter 1.

**Disconnect AC outlet before changing a fuse !!!**

### 3 Selecting Address/Basic Functions

Adjust DMX-Address and basic functions **before** connecting the **Max** to AC Power !!!

#### 3.1 Adjust the DMX-Address

Address				
ON		max 1	DMX Address	0
OFF				
	1 2 3 4 5 6 7 8 9 10			
ON		max 2	DMX Address	8
OFF				
	1 2 3 4 5 6 7 8 9 10			
ON		max 3	DMX Address	16
OFF				
	1 2 3 4 5 6 7 8 9 10			
ON		max 4	DMX Address	24
OFF				
	1 2 3 4 5 6 7 8 9 10			
ON		max 5	DMX Address	32
OFF				
	1 2 3 4 5 6 7 8 9 10			
ON		max 6	DMX Address	40
OFF				
	1 2 3 4 5 6 7 8 9 10			
ON		max 7	DMX Address	48
OFF				
	1 2 3 4 5 6 7 8 9 10			
ON		max 8	DMX Address	56
OFF				
	1 2 3 4 5 6 7 8 9 10			

## 3.2 Special Function

### 3.2.1 Sound function

Sound controlled run of factory stored programs is possible by switching the DMX Address at first **Max** as seen in the picture below. Set the Dip switches of any other connected **Max** to OFF.



### 3.2.2 Standalone Function

Automatically Runs factory stored program. If you want to use this setting while connecting more than one **Max** in a line, set the Dip switches of all others connected units to OFF.



### 3.2.3 Reset

All functions will Reset and move to zero position.



### 3.2.4 Switch off Lamp

If the channels 3 (Speed Arm), 4 (Speed Head) and 8 (Shutter) on **Max** zero at the same time, the lamp of the **Max** will switch off immediately. Any change of channel 8 (Shutter) will start the lamp again.

If there is no signal on channel 8 (Shutter) for more than 2 min. on DMX zero, the lamp will switch off automatically. Any signal of channel 8 (Shutter) will start the lamp again.



## 4 Channel selection ( Overview table )

Channel	Description	DMX-Value	Hex- Value	Value in %	
1) Pan	Armposition	0 - 255	0 - FF	0 – 100	
2) Tilt	Headposition	0 - 255	0 - FF	0 – 100	
3) Speed (Arm)	Armspeed 1/8min-2/sec	0 - 255	0 - FF	0 – 100	
4) Speed (Head)	Headspeed 1/8min-2/sec	0 - 255	0 - FF	0 – 100	
5) Movements	Head	Arm			
	Pos min	Pos min	0 - 15	0 - F	0 – 5
	Pos min	Pos Max	16 - 31	10 - 1F	6 – 12
	Pos Max	Pos min	32 - 47	20 - 2F	13 – 18
	Pos Max	Pos Max	48 - 63	30 - 3F	19 – 24
	Rotation left	Pos min	64 - 79	40 - 4F	25 – 31
	Rotation left	Pos Max	80 - 95	50 - 5F	32 – 37
	Rotation right	Pos min	96 - 111	60 - 6F	38 – 43
	Rotation right	Pos Max	112 - 127	70 - 7F	44 – 50
	Pos min	Rotation left	128 - 143	80 - 8F	51 – 56
	Pos Max	Rotation left	144 - 159	90 - 9F	57 – 62
	Pos min	Rotation right	160 - 175	A0 - AF	63 – 68
	Pos Max	Rotation right	176 - 191	B0 - BF	69 – 75
	Rotation left	Rotation left	192 - 207	C0 - CF	76 – 81
	Rotation right	Rotation right	208 - 215	D0 - D7	82 – 84
	Rotation left	Rotation right	216 - 231	DA - E7	85 – 90
	Rotation right	Rotation left	232 - 254	E8 - FE	91 – 99
		Reset all functions	255	FF	100
	6) Color	Color correction filter 5600K	0 -3	0 - 3	1
		Halfcolor 1	4 - 7	4 - 7	2
blue 107		8 - 11	8 - B	3	
Halfcolor 2		12 - 15	C - F	5	
blue110		16 - 19	10 - 13	7	
Halfcolor 3		20 - 23	14 - 17	8	
blue101		24 - 27	18 - 1B	10	
Halfcolor 4		28 - 31	1C - 1F	11	
cyan 401		32 - 35	20 - 23	13	
Halfcolor 5		36 - 39	24 - 27	15	
green 201		40 - 43	28 - 2B	16	
Halfcolor 6		44 - 47	2C - 2F	18	
green 204		48 - 51	30 - 33	19	
Halfcolor 7		52 - 55	34 - 37	21	
yellow 601		56 - 59	38 - 3B	22	
Halfcolor 8		60 - 63	3C - 3F	24	

Channel	Description	DMX-Value	Hex- Value	Value in %
	orange 306	64 - 67	40 - 43	25
	Halfcolor 9	68 - 71	44 - 47	27
	red 304	72 - 75	48 - 4B	29
	Halfcolor 10	76 - 79	4C - 4F	30
	pink 303	80 - 83	50 - 53	32
	Halfcolor 11	84 - 87	54 - 57	33
	magenta 501	88 - 91	58 - 5B	35
	Halfcolor 12	92 - 95	5C - 5F	36
	magenta 507	96 - 99	60 - 63	38
	Halfcolor 13	100 - 103	64 - 67	40
	cyan 104	104 - 107	68 - 6B	41
	Halfcolor 14	108 - 111	6C - 6F	43
	orange 302	112 - 115	70 - 73	44
	Halfcolor 15	116 - 119	74 - 77	46
	türkis 208	120 - 123	78 - 7B	47
	Halfcolor 16	124 - 127	7C - 7F	49
	pink 310	128 - 131	80 - 83	50
	Halfcolor 17	132 - 135	84 - 87	52
	yellow 603	136 - 139	88 - 8B	54
	Halfcolor 18	140 - 143	8C - 8F	55
	UV blue 108	144 - 147	90 - 93	57
	Halfcolor 19	148 - 151	94 - 97	58
	red 301	152 - 155	98 - 9B	60
	Halfcolor 20	156 - 159	9C - 9F	61
	open (no filter)	160 - 175	A0 - AF	62 – 68
	Rotation 1 fast-slow	176 - 208	B0 - D0	69 – 81
	Rotation stop	209 - 221	D1 - DF	82 – 86
	Rotation 2 slow-fast	222 - 255	E0 - FF	87 – 100
<b>7) Gobos</b>	Gobo 1	0 - 7	0 - 7	2
	Gobo 2	8 - 15	8 - F	5
	Gobo 3	16 - 23	10 - 17	8
	Gobo 4	24 - 31	18 - 1F	11
	Gobo 5	32 - 39	20 - 27	15
	Gobo 6	40 - 47	28 - 2F	18
	Gobo 7	48 - 55	30 - 37	21
	Gobo 8	56 - 63	38 - 3F	24
	Gobo 9	64 - 71	40 - 47	27
	Gobo 10	72 - 79	48 - 4F	30
	Gobo 11	80 - 87	50 - 57	33
	Gobo 12	88 - 95	58 - 5F	36
	Gobo 13	96 - 103	60 - 67	40
	Gobo 14	104 - 111	68 - 6F	43

Channel	Description	DMX-Value	Hex- Value	Value in %
	Gobo 15	112 - 119	70 - 77	46
	Gobo 16	120 - 127	78 - 7F	49
	Gobo 17	128 - 135	80 - 87	52
	Gobo 18	136 - 143	88 - 8F	55
	Gobo 19	144 - 151	90 - 97	58
	Gobo 20	152 - 159	98 - 9F	61
	Gobo 21	160 - 175	A0 - A7	68
	Rotation fast-slow	176 - 208	B0 - D0	69 – 81
	Rotation stop	209 - 255	D1 - FF	82 – 100
<b>8) Shutter</b>	Shutter closed 1	0 - 7	0 - 7	2
	Shutter open	8 - 15	8 - F	5
	Shutter closed 2	16 - 23	10 - 17	8
	Shutter frequency, high/low	24 - 127	18 - 7F	9 – 50
	Shutter open, color/gobo speed slow - fast	128 - 255	80 - FF	51 – 100
<b>Lamp off</b>	After 2 min. if: Shutter close <b>or</b> Shutter close 2	0 – 7 <b>or</b> 16 – 23	0 – 7 <b>or</b> 10 – 17	0 – 2 <b>or</b> 5 – 8
<b>Lamp off</b>	Immediately if: Shutter close 1 <b>and</b> Speed Pan/Tilt = 0	Shutter 0 – 7 <b>and</b> Speed=0	Shutter 0 – 7 <b>and</b> Speed=0	Shutter=2 <b>and</b> Speed=0
<b>Lamp on</b>	If Shutter not closed	Shutter≠0	Shutter≠0	Shutter≠0

## 5 Change the Lamp

For a hassle free change of the Light bulb, it is absolutely necessary to follow all descriptions in this chapter step by step.

### 5.1 Safety rules

Unplug AC power connection

Allow to cool (over 30 minutes)

Don't touch lamp with bare fingers.

Close the **Max** before you connect the AC power!

### 5.2 How to change the lamp

Please look at Picture1-1

1. Unscrew knurled knob on the Head Cover
2. Remove Head Cover and put it aside
3. Remove Lamp carefully from its holder and disconnect lamp socket
4. Mount new lamp and close case using step 1-3 in reverse order

**Attention: Make sure that the lamp and the connectors fit in the right position and place !!!**

## 6 Maintenance the MAX

The cleaning of the inner optical System, color filters and color correction filter should be done by qualified person only! Contact your local GLP Dealer for details.

**ATTENTION: Use no strong detergents, acid etc. for cleaning the case !!!**

### 6.1 *Optical System*

Clean the **Max** optical system with a moistened cloth and a little cleaner.

Remove the Lens holder to clean the lens

**ATTENTION: Let everything dry carefully before connect AC Power!**

### 6.2 *Cleaning the Fans*

It is necessary to clean the fan openings, air channels and fan gratings on a regular basis (depending on the local environment).

**ATTENTION: If using the Max on the floor requires a continuously flow of air into the base fan opening !!!**

## 7 Technical Data /Overview

- ◆ Supply data 230/120 Volt 5x20 3.15AT/6.3AT
- ◆ Lamp: 24V 250W ELC GX 5,3
- ◆ DMX 512 Standard
- ◆ Weight 13.5 kg
- ◆ Dimensions: 240 x 335 x 430 mm
- ◆ 21 gobos
- ◆ 20 dichroitic colors
- ◆ High speed Shutter
- ◆ Stand alone
- ◆ Music controlled
- ◆ Base: 1U/12 min – 120U/min
- ◆ Head: 1U/4min – 60U/min

