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ELECTROCONCEPT

MATRIX 430



Instruction manual

Thank you for purchasing this product.

**Please carefully read this manual before using this
spotlight**

Responsibility :

On no account the Electroconcept company shall be held responsible for any damages of any nature whatsoever, notably the operating loss, destruction of consumables (tape, disc, CD) or any other financial loss resulting from the use or the impossibility to use your equipment. In addition Electroconcept shall not be held responsible for damages due to an improper use of this product.

Warranty :

Electroconcept products have a 2 years manufacturer warranty. The equipment shall be returned prepaid (at the customer's own expense). Any freight collect will be refused. The equipment shall be returned in its original packaging. The equipment's restitution will be at our own expense.

Are excluded from warranty: damages due to fault, negligence, lack of maintenance by the user (broken, burnt, heated, wet, sandy...etc devices), already installed devices of which the failure would originate from an improper installation or use by the customer.

This manual is an integral part of this product, you will need to keep it during all of your product shelf-life. In the event of cession of your product to a third party, you must also give this manual to this third party.

TABLE OF CONTENTS

1. Safety instructions
2. Technical specifications
3. Spotlight starting up
 1. Access to main functions
 2. DMX wiring
4. DMX control channels and values
5. Troubleshooting
6. Cleaning

1. Safety instructions

Please carefully read these instructions as they include valuable information for installation, operation and maintenance of this device.



Warning

- Keep this manual for future consultations. If you resell your spotlight to an other individual, make sure to also give him this manual.
- Unpack and carefully check that the spotlight didn't take any damages during the transport before using it.
- Before any connection, make sure that both the voltage and the frequency of your power

source match your spotlight specifications.

- Check your device as well as your equipment's grounding.
- This device is only meant for indoor use ; protect it from heat and humidity (allowed ambient temperature from 10 to 40°C).
- The spotlight must be set up in a ventilated area, at least 50cm away from any adjacent surface. Check that no ventilation hole is blocked.
- Unplug the spotlight's power source before any maintenance or handling operation.
- Only replace the fuse by a fuse of the same type.
- In order to avoid any fire hazard, check for any flammable source nearby.
- Use safety cables to secure the spotlight. Hold the spotlight only by its carrying handles to avoid degradation and risk of injury.
- Switch off the power and let the spotlight cool down for about 15 minutes before transport, for the spotlight's surface may be hot still.
- In the event of a serious functioning problem, stop immediately to use the device. Do not ever try to repair the device by yourself. Repairs made by unqualified individuals may cause damages or malfunctions. Contact the nearest approved technical support center. Always use spare parts of the same type.
- Do not connect the spotlight to any dimmer or power pack.
- Do not open the device during its operation, the high voltage may cause a lethal electrical shock.
- In order to prevent or reduce risks of electrical shock or fire, do not expose the device to rain or humidity.
- Do not ever touch the led with your bare fingers after use to avoid serious injuries, for the led may be very hot still.
- Do not start the spotlight without led to avoid degradation of the box..
- **Replace the box and the lenses if they are visually damaged (for example cracks or deep cuts during transport or handling). This is essential.**
- Do not look straight at the light going out of led when the spotlight is switched on.
 - In order to prevent any risks of electrical shock you must not remove the cover. There is no useful part for the user inside. Refer the repair to qualified personnel.

Installation

The spotlight must be attached via its screw holes to the support with help of the provided hook. Always make sure the spotlight is firmly attached to avoid vibrations and sliding during the operation.. Always make sure the structure to which the spotlight is attached is secured and able to bear 10 times the projector's weight.

2. Technical specifications.

This device does not produce radio interference. This device meets European and French requirements. Compliance has been established, and statements and respective documents have been registered by the manufacturer. This device has been made for indoor decorative lighting effects.

Power supply : AC 220-250V 50/60Hz (fusible 3A)
Input / Output : Power Con (blue / gray)
Power: 150 W
Lamp : 4 LEDs RGW 30W
Colors: RGB colors + White
Dimmer PWM :Depth of 12 bits by color
DMX : DMX 512 wired ou DMX HF (Rev A ou Rev B)
Beam: 24 degrees

Weight/Dimensions: 2,5 Kg / 450 x120 x185 mm

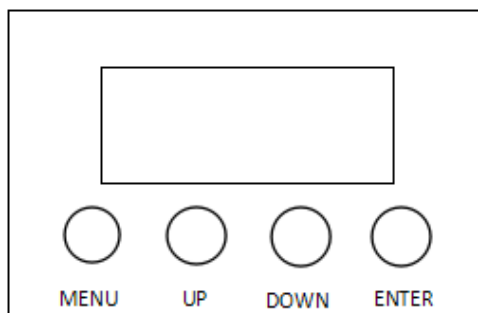
Operating mode :

-DMX control from 1 to 23 channels. Stand-Alone mode with built-in microphone / Stand-Alone mode with Auto mode/ Master/Slave mode

3. spotlight starting up

3.1. Access to main functions :

Control panel:



"MENU" "▼" "▲" "ENTER"

Press the "MENU" button to access to the mode selection, then « ▼ » or « ▲ » to select the mode. Confirm the selected mode with « ENTER » .

Browse through the sub-menu with « ENTER » and « ▼ » or « ▲ » to modify the value . To confirm or to go back, "MENU" button .

4 Operating modes are available : DMX Control , Master mode and Slave mode, Macro mode.

DMX Mode : **D----**

0001

: DMX address

0115

: Selection of DMX mode (number of channels from 1 to 21)

Fixed color mode : **C----**

R001

: Red Color -> level from 0 to 255

G001

: Green Color -> level from 0 to 255

B001

: Blue Color -> level from 0 to 255

W001

: White Color -> level from 0 to 255

Master Program Mode : **P----**

P-01

: selection of internal program. They are intended to control 3 slave projectors

S001

: Speed -> level from 0 slow to 127 fast

S00N

: Sensitive to sound -> On or oF

Slave Mode : **S----**

I D-1

: Positioning of the Slave spotlight from 0 to 3 (cf 4,1)

FL-0

: Layout of spotlight and Leds. Leave it to 0 for synchronous effects. Modify to change the leds' reaction (right flip, up flip etc...)

In Slave mode the DMX cable must be connected between the products (no Master/Slave mode in HF)

Macro Mode : **M----**

M001

: Used Macro -> from 0 to 31 , from 16 to 31 are fixed pixels (for example to manage giant letters)

S001

: Speed -> level from 0 slow to 127 fast d

R001

: Red Color -> level from 0 to 255

G001

: Green Color -> level from 0 to 255

B001

: Blue Color -> level from 0 to 255

W001

: White Color -> level from 0 to 255

R001

: Red Background Color -> level from 0 to 255

G001

: Green Background Color -> level from 0 to 255

B001

: Blue Background Color -> level from 0 to 255

W001

: White Background Color -> level from 0 to 255

S00N

: Sensitive to sound -> On or oF

System Menu : **545T**

I D-1

: Positioning of the Master spotlight from 0 to 3 in Master or DMX mode.

G-OFF

: Gamma correction mode on the dimmer On or OFF

FL-0 : Layout of spotlight and Leds. Leave it to 0 for synchronous effects. Modify to change the leds' reaction.

3.2 DMX wiring

This product uses 3-pin XRL connectors for the DMX512 connection:

Pin 1 : Ground , Pin 2 : Data (-), Pin 3 : Data (+).

Example : connection between different fixtures in Master/Slave mode:

All fixtures must be at the same DMX address, the 1st projector in Automatic or Sound mode, following spotlights in DMX mode at the same address of the Master spotlight.

NB : in order to reduce signal errors, think of using a plug at the end of your DMX link.

Occupation of the XLR-connection:



4. DMX Values Table :

Mode 1 Channel

| DMX Channel | Description |
|-------------|------------------------------|
| 1 | Dimmer in White Blinder Mode |

Mode 4 Channels

| DMX Channel | Description |
|-------------|---------------------------|
| 1 | Red Level from 0 to 255 |
| 2 | Green Level from 0 to 255 |
| 3 | Blue Level from 0 to 255 |
| 4 | White Level from 0 to 255 |

Mode 6 Channels

| DMX Channel | Description |
|-------------|----------------|
| 1 | General Dimmer |

| | |
|---|--|
| 2 | Strobe 0 → OFF : 1 → 255 From slow to fast |
| 3 | Red Level from 0 to 255 |
| 4 | Green Level from 0 to 255 |
| 5 | Blue Level from 0 to 255 |
| 6 | White Level from 0 to 255 |

Mode 9 Channels

| DMX Channel | Description |
|-------------|---|
| 1 | General Dimmer |
| 2 | Strobe 0 → OFF : 1 → 255 From slow to fast |
| 3 | Red Level from 0 to 255 |
| 4 | Green Level from 0 to 255 |
| 5 | Blue Level from 0 to 255 |
| 6 | White Level from 0 to 255 |
| 7 | Program 0 → Off : 1 → 255 Program (see programs table) |
| 8 | Program speed 0 → 127 slow to fast following the program's course 128 → 255 slow to fast following the program's counter-course |
| 9 | Palette 0 → 31 , the color program is the RGBW components of channels 3-4-5-6. with 4 repetitions of the color pixel RGBW Palette: 0→15 : 1 pixel over 2 RGBW Palette: 16 → 31 : 1 pixel over 4 RGBW Palette: 32 → 47 : 1 pixel over 8 RGBW Palette: 48 → 63 : 1 pixel over 16 Palette Channel of 64 → 255 : 12 palettes of preset colors Palette 1: 64 → 79 ,Palette 2: 80 → 95 ,Palette 3: 96 → 111 , Palette 4: 112 → 127 ,Palette 5: 128 → 143 ,Palette 6: 144 → 159 , Palette 7: 160 → 175 ,Palette 8: 176 → 191 ,Palette 9: 192 → 207 , Palette 10: 207 → 223 ,Palette 11: 224 → 239 ,Palette 12: 240 → 255 |

If the program is set to 0 with a clipped palette, the spotlight switches to Blinder mode.

Mode 13 Channels

| DMX Channel | Description |
|-------------|---------------------------------------|
| 1 | General Dimmer |
| 2 | Strobe 0 → OFF : 1 → 255 Slow to fast |
| 3 | Red Level from 0 to 255 |

| | |
|----|---|
| 4 | Green Level from 0 to 255 |
| 5 | Blue Level from 0 to 255 |
| 6 | White Level from 0 to 255 |
| 7 | Program 0 → Off : 1 → 255 Program (see programs table) |
| 8 | Program speed 0 → 127 slow to fast following the program's course 128 → 255 slow to fast following the program's counter-course |
| 9 | Palette 0 → 31 , the color program is the RGBW components of channels 3-4-5-6. with a colored background on 10-11-12-13 with 4 repetitions of the color pixel. RGBW Palette : 0→15 : 1 pixel over 2 RGBW background RGBW Palette: 16 → 31 : 1 pixel over 4 RGBW background RGBW Palette: 32 → 47 : 1 pixel over 8 RGBW background RGBW Palette: 48 → 63 : 1 pixel over 16 RGBW background Palette channel of 64 → 255 : 12 palettes of preset colors Palette 1: 64 → 79 ,Palette 2: 80 → 95 ,Palette 3: 96 → 111 , Palette 4: 112 → 127 ,Palette 5: 128 → 143 ,Palette 6: 144 → 159 , Palette 7: 160 → 175 ,Palette 8: 176 → 191 ,Palette 9: 192 → 207 , Palette 10: 207 → 223 ,Palette 11: 224 → 239 ,Palette 12: 240 → 255 |
| 10 | Red background Level from 0 to 255 |
| 11 | Green background Level from 0 to 255 |
| 12 | Blue background Level from 0 to 255 |
| 13 | White background Level from 0 to 255 |

If the program is set to 0 with a clipped palette, the spotlight switches to Blinder mode

Mode 16 Channels

| DMX Channel | Description |
|-------------|--------------------------------------|
| 1 | Red Level from 0 to 255 of pixel 1 |
| 2 | Green Level from 0 to 255 of pixel 1 |
| 3 | Blue Level from 0 to 255 of pixel 1 |
| 4 | White Level from 0 to 255 of pixel 1 |
| 5 | Red Level from 0 to 255 of pixel 2 |
| 6 | Green Level from 0 to 255 of pixel 2 |
| 7 | Blue Level from 0 to 255 of pixel 2 |
| 8 | White Level from 0 to 255 of pixel 2 |
| 9 | Red Level from 0 to 255 of pixel 3 |

| | |
|----|--------------------------------------|
| 10 | Green Level from 0 to 255 of pixel 3 |
| 11 | Blue Level from 0 to 255 of pixel 3 |
| 12 | White Level from 0 to 255 of pixel 3 |
| 13 | Red Level from 0 to 255 of pixel 4 |
| 14 | Green Level from 0 to 255 of pixel 4 |
| 15 | Blue Level from 0 to 255 of pixel 4 |
| 16 | White Level from 0 to 255 of pixel 4 |

Mode 18 Channels

| DMX Channel | Description |
|-------------|---------------------------------------|
| 1 | General Dimmer |
| 2 | Strobe 0 → OFF : 1 → 255 Slow to fast |
| 3 | Red Level from 0 to 255 of pixel 1 |
| 4 | Green Level from 0 to 255 of pixel 1 |
| 5 | Blue Level from 0 to 255 of pixel 1 |
| 6 | White Level from 0 to 255 of pixel 1 |
| 7 | Red Level from 0 to 255 of pixel 2 |
| 8 | Green Level from 0 to 255 of pixel 2 |
| 9 | Blue Level from 0 to 255 of pixel 2 |
| 10 | White Level from 0 to 255 of pixel 2 |
| 11 | Red Level from 0 to 255 of pixel 3 |
| 12 | Green Level from 0 to 255 of pixel 3 |
| 13 | Blue Level from 0 to 255 of pixel 3 |
| 14 | White Level from 0 to 255 of pixel 3 |
| 15 | Red Level from 0 to 255 of pixel 4 |
| 16 | Green Level from 0 to 255 of pixel 4 |
| 17 | Blue Level from 0 to 255 of pixel 4 |
| 18 | White Level from 0 to 255 of pixel 4 |

Mode 21 Channels

| DMX Channel | Description |
|-------------|---------------------------------------|
| 1 | General Dimmer |
| 2 | Strobe 0 → OFF : 1 → 255 Slow to fast |

| | |
|----|---|
| 3 | Red Level from 0 to 255 of pixel 1 |
| 4 | Green Level from 0 to 255 of pixel 1 |
| 5 | Blue Level from 0 to 255 of pixel 1 |
| 6 | White Level from 0 to 255 of pixel 1 |
| 7 | Red Level from 0 to 255 of pixel 2 |
| 8 | Green Level from 0 to 255 of pixel 2 |
| 9 | Blue Level from 0 to 255 of pixel 2 |
| 10 | White Level from 0 to 255 of pixel 2 |
| 11 | Red Level from 0 to 255 of pixel 3 |
| 12 | Green Level from 0 to 255 of pixel 3 |
| 13 | Blue Level from 0 to 255 of pixel 3 |
| 14 | White Level from 0 to 255 of pixel 3 |
| 15 | Red Level from 0 to 255 of pixel 4 |
| 16 | Green Level from 0 to 255 of pixel 4 |
| 17 | Blue Level from 0 to 255 of pixel 4 |
| 18 | White Level from 0 to 255 of pixel 4 |
| 19 | Program 0 → Off : 1 → 255 Program (see programs table) |
| 20 | Program speed 0 → 127 slow to fast following the program's course 128 → 255 slow to fast following the program's counter-course |
| 21 | <p>Palette 0 → 31 , the color program is the RGBW components of channels 3-4-5-6. with a colored background on 7-8-9-10 with 4 repetitions of the color pixel</p> <p>RGBW Palette : 0→15 : 1 pixel over 2 RGBW background RGBW Palette: 16 → 31 : 1 pixel over 4 RGBW background RGBW Palette: 32 → 47 : 1 pixel over 8 RGBW background RGBW Palette: 48 → 63 : 1 pixel over 16 RGBW background</p> <p>Palette channel of 64 → 255 : 12 palettes of preset colors Palette 1: 64 → 79 ,Palette 2: 80 → 95 ,Palette 3: 96 → 111 , Palette 4: 112 → 127 ,Palette 5: 128 → 143 ,Palette 6: 144 → 159 , Palette 7: 160 → 175 ,Palette 8: 176 → 191 ,Palette 9: 192 → 207 , Palette 10: 207 → 223 ,Palette 11: 224 → 239 ,Palette 12: 240 → 255</p> |

If the program is set to 0 with a clipped palette, the spotlight switches to Blinder mode on one of the colors of pixel 1

Program Channel DMX Zone :

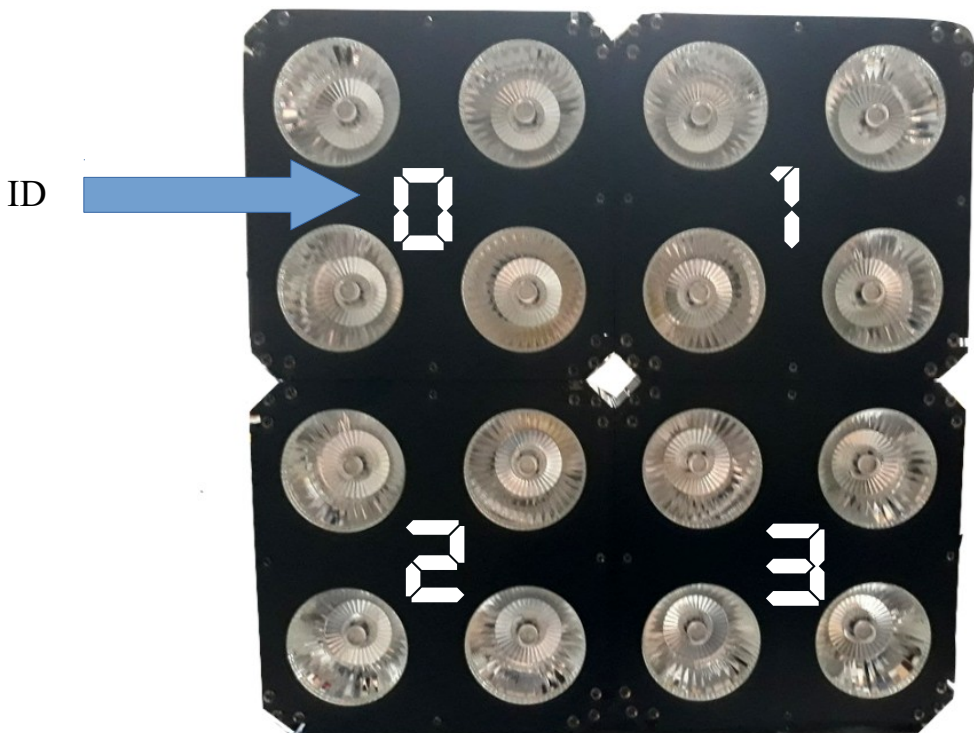
| Program | DMX Zone | Description |
|---------|-----------|-----------------------|
| 1 | 7 → 15 | Program 1 |
| 2 | 16 → 23 | |
| | Every 8 | Program n |
| 31 | 247 → 255 | Program random pixel. |

4.1 Program ID Matching.

Internal programs are intended to work with 4 spotlights set as a « square ».

In order for the effect to be fully carried out you need to select the ID of every spotlight, either in DMX or Master/Slave Mode

Front view :



5. Troubleshooting

A. The spotlight does not work, no lights nor fan :

1. Check the power cord and the main fuse.
2. Check that your electrical system is working.

B. No response to DMX controller

1. A dot must flash on the device control screen. If it's not the case, check if cables are

properly connected and in good condition.

2. If the dot flashes, check your addressing as well as the polarity of your DMX wiring.
3. Try an other DMX controller
4. Avoid to lay your DMX cables alongside high-voltage lines to avoid interference.

C.In Master/Slave Mode some devices don't properly respond

1. Check cables and the connection diagram.
2. Check that devices are properly assigned in Master/Slave mode.

6. Cleaning

Before any cleaning operation, unplug the

spotlight power cord in order to avoid any electrocution risk. Cleaning the optic must be done periodically in order to optimize the spotlight's brightness. The cleaning frequency depends on the operating environment. Smoke and dust may cause a large accumulation of dirt upon the spotlight's optics :

- Clean it with a soft dry cloth.
- Do not use liquid or detergent products.
- Clean external lenses approximately every 20 days, with a soft dry cloth, without overly pressing on the lenses.

The logo for ELECTROCONCEPT features the brand name in a bold, blue, sans-serif font with a white outline. A thick, green, curved line arches over the text, starting from the left and ending on the right, creating a dynamic, swooshing effect.

ELECTROCONCEPT SARL LA GARE 69620 CHAMELET FRANCE