

Mr.Light LED

Led-Operated Signalling Device

Operating manual

(Rel. 1.4)



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2 INSTALLATION WARNINGS

- Read carefully the present manual and conserve it
- The lamp has been designed and built in conformity with the security laws in force.
- Please use high quality wires wherever possible.
- The installation has to be carried on by skilled technicians.
- The illustrations in this manual may differ somewhat from the actual equipment design.
- In case of technical problems or faults please do not open the covers and contact the manufacturer.
- Axel Technology is at Yr. complete disposal for every requirements and troubleshooting. Please read carefully the manual and the electric layout before contacting our technical department.

3 INTRODUCTION

Mr. Light LED is a compact and efficient signalling device, ideal for radio studios, recording suites, tv and radio control rooms, etc.

An internal high intensity LED array provides optimal visibility in any environmental light condition. As an option, Mr. Light LED is also available in the 'double sided' version, featuring two illuminated faces.

Warning texts (such as 'On Air', 'Silence', etc) are printed on transparent films and can be chosen from the standard range or customized for your application. The display can be constantly illuminated or blinking, and easily modified by replacing the film.

With the included bracket, Mr Light is easily mounted to the wall or to the ceiling. An optional, additional bracket is available to allow for easy 'flag' mounting.

For easier installation and operation, Mr Light LED just requires a simple DC supply of between 12 and 15 Volts.

The optional Mr Light's power supply can provide enough power to operate a maximum of three units, with any combination of constant or blinking operation. It also allows for easy control via TTL or clean contacts on photocouplers (separate for each lamp) and makes Mr. Light suitable for any audio console or control device.

Thanks to the separate installation of the power supply, You will avoid any long AC main cable runs across the walls or close to the studio's ceiling.

Alternatively to the dedicated power supply, Mr. Light LED lamps may also fed by any regular stabilized DC voltage.

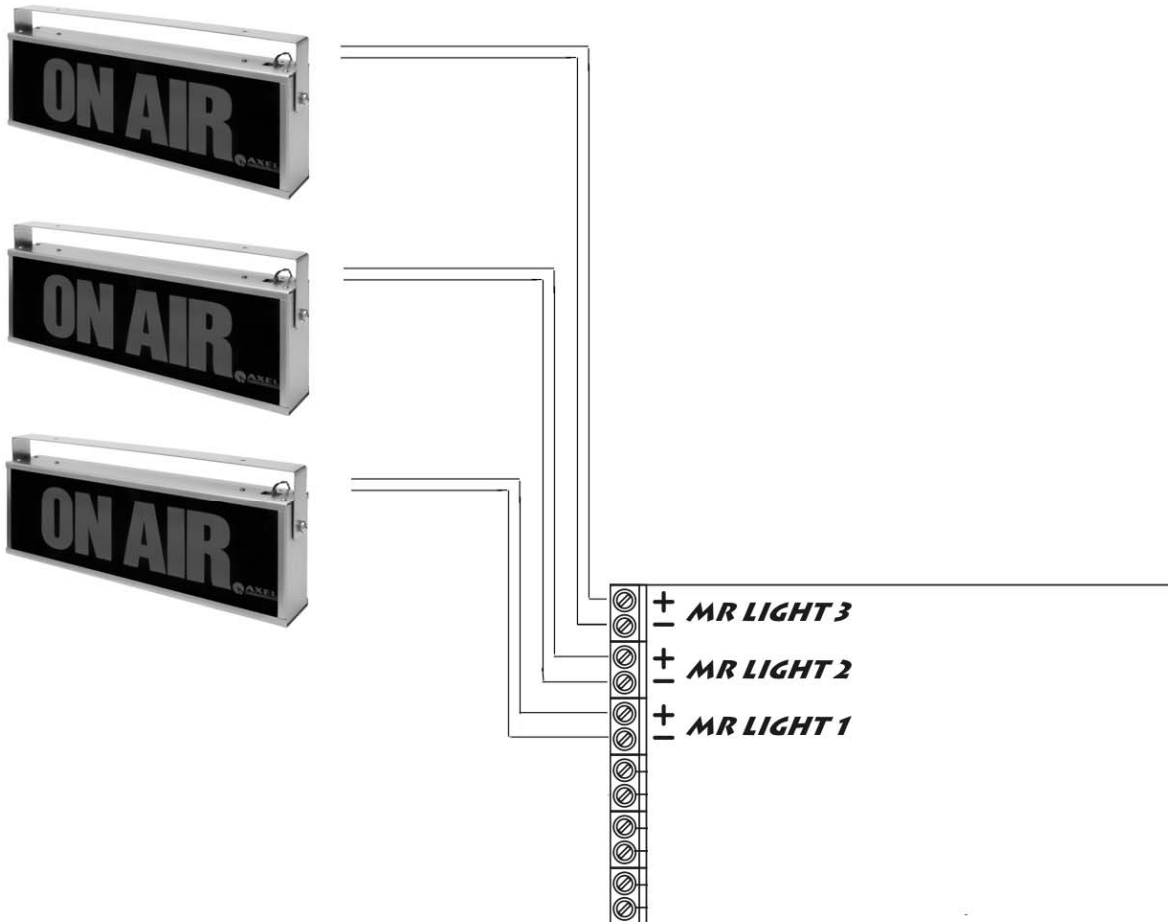
VERSIONS and OPTIONS

- On-Air (Led) Lamp 12Vdc	MR.LIGHT L
- On-Air (Led) Lamp double side 12 Vdc	MR.LIGHT LD
- Power Supply for max 3 Lamps 110 / 220 Vac	MR.LIGHT LPWS
- Wall mounting flag bracket	MR.LIGHT SB

4 CONNECTIONS WHEN USING THE DEDICATED POWER SUPPLY

Mr. Light LED lamps can be powered by dedicated power supply unit (available as an option) or by any regular stabilized 12 V DC voltage. The optional Mr Light's power supply can provide enough power to operate a maximum of three units, with any combination of constant or blinking operation. It also allows for easy control via TTL or clean contacts on photocouplers (separate for each lamp) and makes Mr. Light suitable for any audio console or control device.

Connect up to three Mr LIGHT Lamps to the power supply via the supplied Terminal Blocks taking care of their DC powering polarity, as shown on the PWS and Lamp sticks.



4.1 AC MAIN VOLTAGE

Mr LIGHT Power supply comes from the factory set for 220 V or 110 V AC Main.

The actual Mains voltage is indicated on the label stuck on the closure.



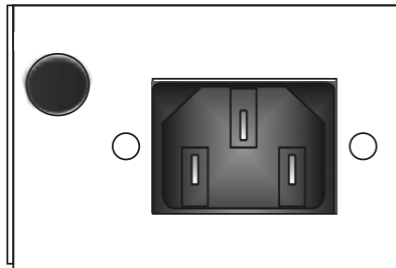
BE SURE THAT THE UNIT IS SET TO THE CORRECT MAINS/LINE VOLTAGE FOR YOUR COUNTRY BEFORE PLUGGING IT INTO THE WALL OUTLET !

If, for some reason, the unit is to be operated at a mains input voltage which is different to that as supplied, contact Axel Technology's technical department, as the AC operating voltage can NOT be altered from the user.

The power supply socket has an integral fuse drawer containing the AC power fuse.

Use a small blade screwdriver to access it.

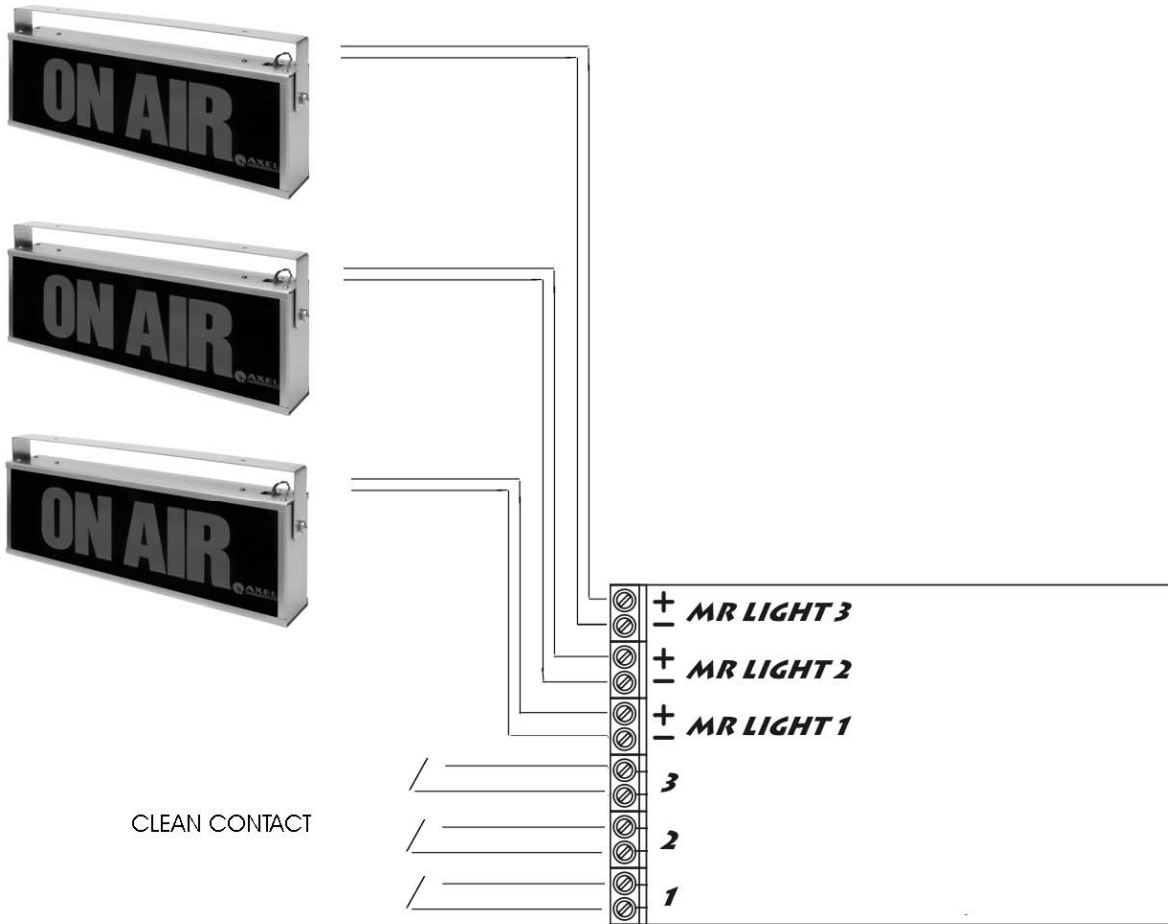
- for 230 V AC the fuse is rated at 250 mA T
- for 110/115 V AC the fuse is rated at 500 mA T



CAUTION: TO REDUCE THE RISK OF ELECTRICAL SHOCK, DO NOT REMOVE THE POWER SUPPLY COVER. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

4.2 STABLE / BLINKING MODE DRIVEN BY CLEAN CONTACT

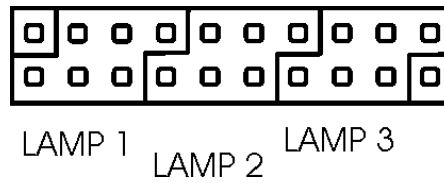
Mr Light LED can be driven by 'clean contacts' either in a 'stable' mode (i.e. it will be continuously on) or in a 'blinking' mode (i.e. light will flash). 'STABLE' operating mode is set as default. PWS control inputs are optocoupled.



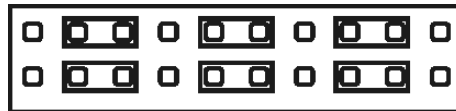
Operating mode selection can be altered by closing proper jumpers located on the PWS side panel.



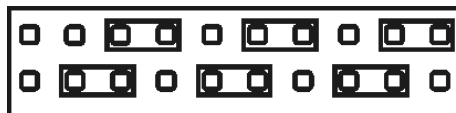
The following picture shows jumper area assignment to the three controlled lamps



For **STABLE** (i.e. not blinking) lamp lighting jumpers are set as in the picture:



For **BLINKING** lamp lighting jumpers are set as in the picture:



NOTE 1

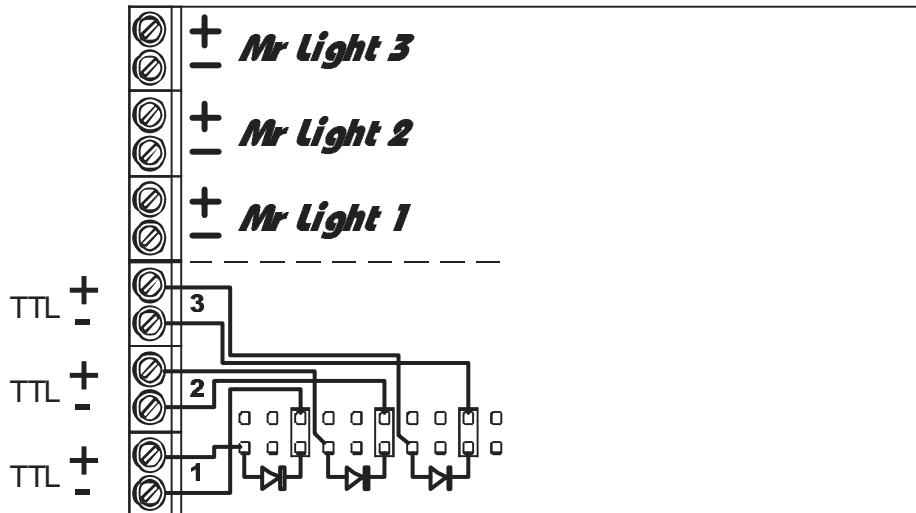
When 'blinking' mode is selected, the **blinking rate** can be adjusted from **3 flashes/sec to 1 flash/sec** via the recessed trimmer placed in the Power supply box (small hole close to Jumper bay).

NOTE 2

It is always possible to set three lamps in different operating modes (f.i. Lamp 1 lights in STABLE mode, while Lamp 2 and Lamp 3 light in BLINKING mode).

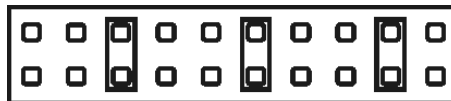
4.3 LAMPS DRIVEN BY TTL LOGIC

PWS control inputs from 1 to 3 can be driven directly with TTL logic.

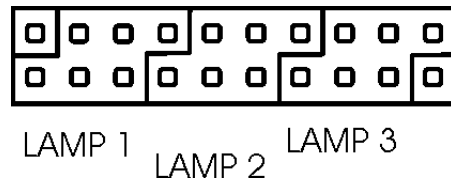


Mr Light LED lamps can be driven by external TTL tensions (+ 5 Volts) applied to terminal blocks from 1 to 3.

To enable TTL control, jumpers must be set as in the following picture:



where jumper area assignment is as follows:



External TTL tension will directly drive photocouplers associated to each input. **An internal 1K Ohm resistor is always inserted on the photodiode cathode for protection.**

NOTE 1:

Mr Light lamp will light always in a 'permanent' mode (i.e. it will light as long as TTL drive tension is applied).

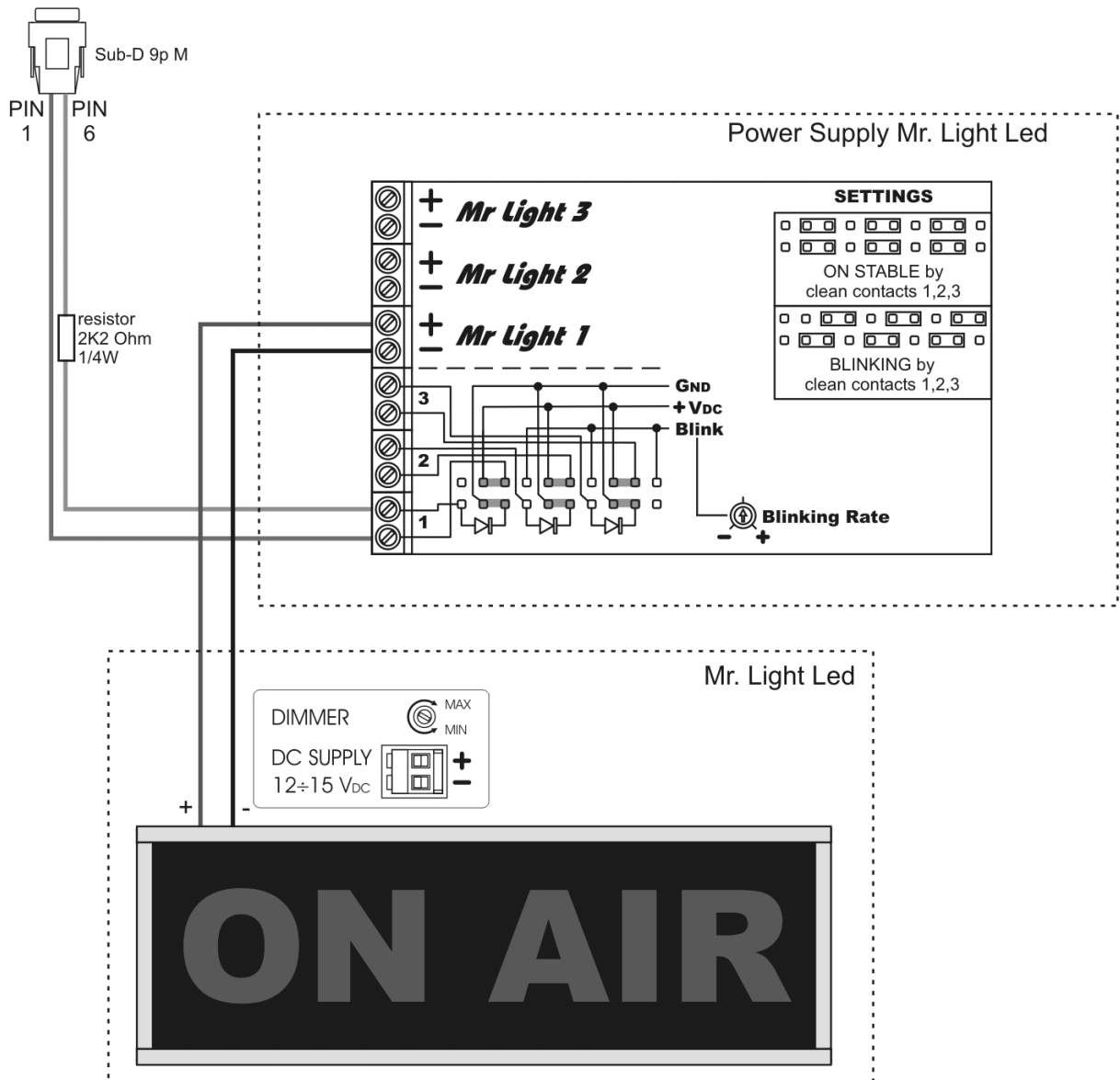
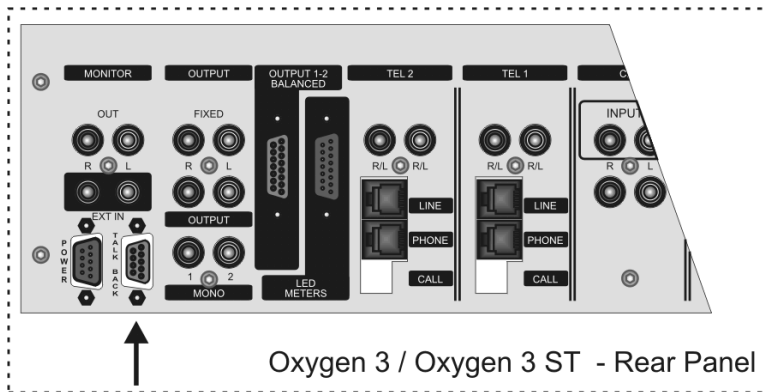
NOTE 2:

In the event a 12 Volt tension is available for control, please feed PWS input through a 1K Ohm carbon resistor.

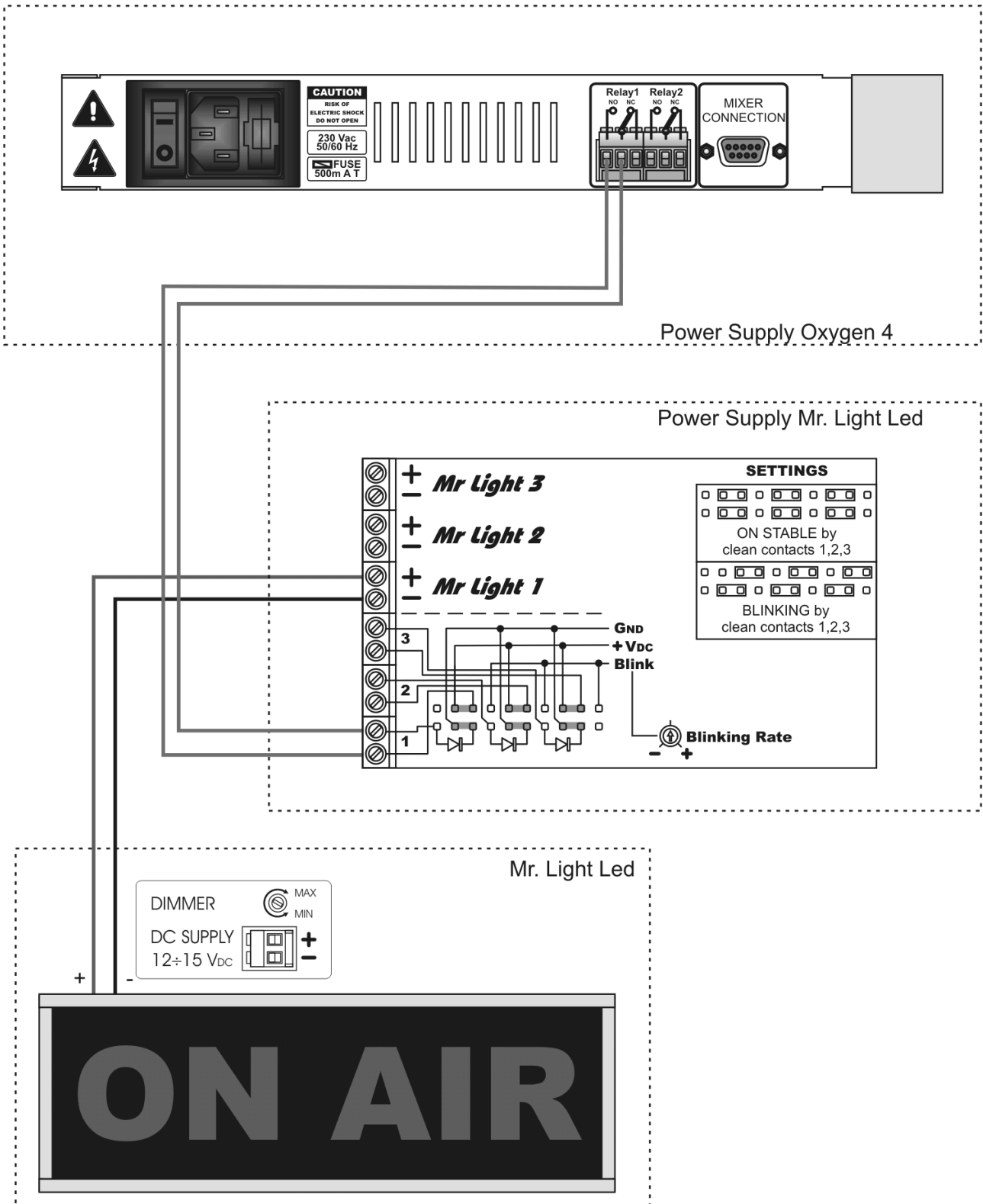
Max current allowed on photocouplers: 10 mA. Nominal: 5 mA.

5 EXAMPLES OF CONNECTIONS TO OXYGEN SERIES CONSOLES

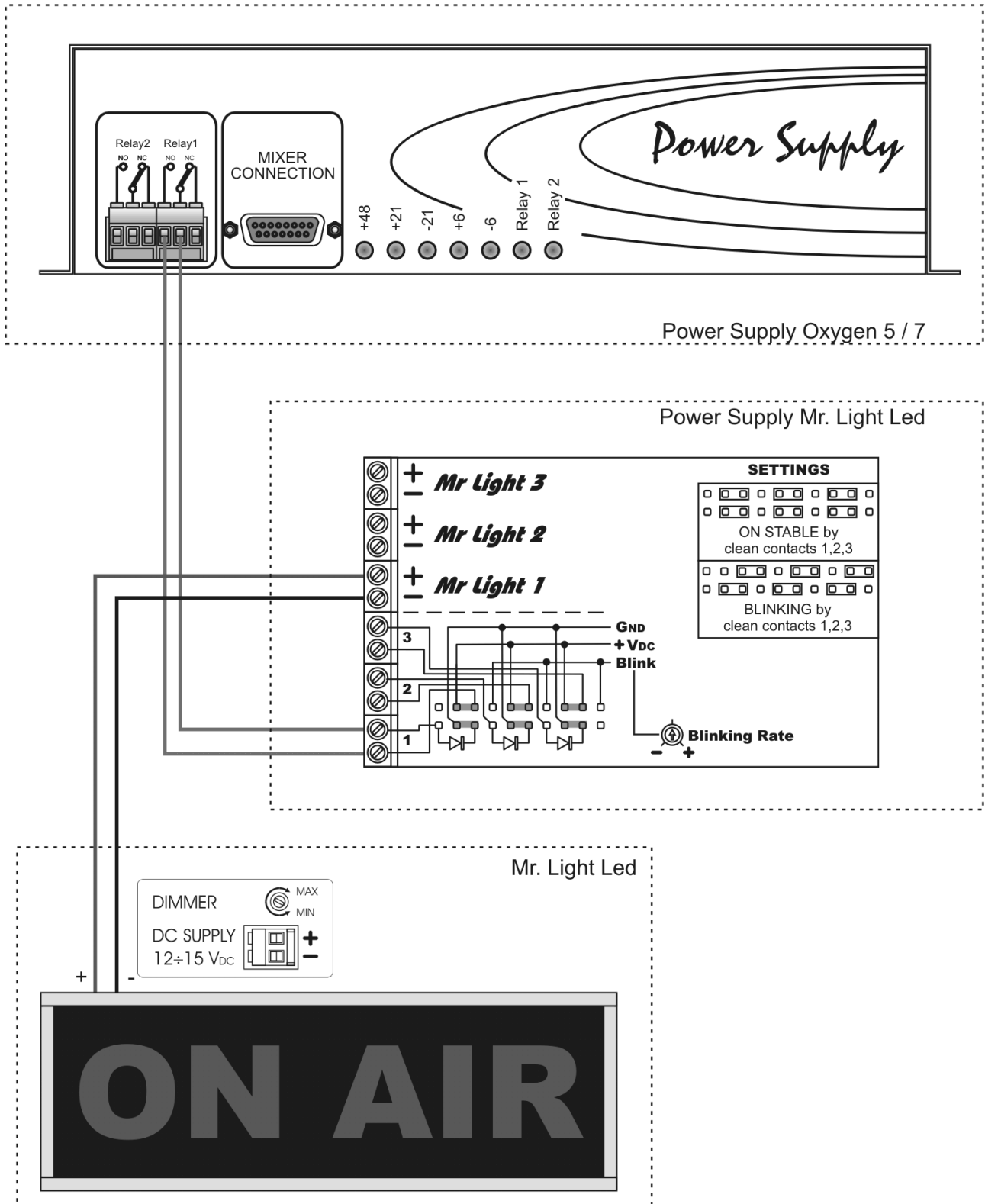
5.1 CONNECTION TO OXYGEN 3



5.2 CONNECTION TO OXYGEN 4



5.3 CONNECTION TO OXYGEN 5-7



6 WALL MOUNTING FLAG BRACKET

As an option, an additional bracket is available to allow for easy 'flag' mounting.

It is highly recommended for use with Mr Light 'double side' version.



To mount the flag bracket, remove the standard support, remove the four screws fixing the side panel and use them to fasten flag mounting plate to the lamp assembly.

7 TECHNICAL SPECIFICATIONS

LED LAMP

Operating Voltage	12 to 15 Vdc
Current	330 mA
Controls	Dimming, through recessed trimmer
Dimensions	351 x 124 x 58 mm (without bracket)
Case	Inox steel
Weight	Around 1.5 Kg

POWER SUPPLY

AC Mains Input	IEC, 110V or 230V 50 / 60 Hz, fused, 15W maximum
Dimensions	109 x 48 x 70 mm
DC outputs	3 x 12 Volt, blinking or permanent (jumper-settable for each lamp)
Controls	3 x TTL / 3 x Clean Contacts (photocoupled, jumper-settable for each lamp)
Control current supported by each port	10 mA max, 5 mA nominal. An internal 1Kohm protection resistor is fitted on series on each port.
Connections	Terminal blocks (supplied)
Controls	Blinking rate adjustment (recessed trimmer)
Blinking Rate	From 3 flashes/sec to 1 flash/sec
Main Features	Capable of powering up to three LED lamps at the same time Independent controls (blinking / stable and TTL / Clean contact) for each lamp