Issue 05/02

OPERATING MANUAL

DMX Relay Card 3008R

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PREFACE

Thank you for choosing a SOUNDLIGHT device.
The SOUNDLIGHT DMX Relay Card 3008R is an intelligent DMX demultiplexer decoding digital data complying with standard USITT DMX512 and DIN 56930-2 to optically isolated potential-free closed solid state relay contacts. The card can be used with all standard light control systems. Its special advantages include:

- **universal protocol decoding**
  Recognizes all variants of the protocol as defined by USITT / ESTA / DIN

- **future-proof**
  The unit is software controlled an can easily be adapted to any change in protocol definition.

- **silent switch trip points**
  The card is fitted with SSR solid state relais with zero crossing detectors, thus enabling smooth and noise-free switching.

- **simple supply**
  The power supply is achieved by its own PSU, power supply is 230V AC.

- **signal loss**
  In the case of a loss of the drive signal the last setting will remain intact.

- **cost-effective**
  The SOUNDLIGHT 3008R is a cost-effective solution for many purposes.

UNPACKING

Please unpack carefully and check that all items are intact. When leaving our factory, the card has been in good condition. In case of damage during transport please notify the carrier immediately.

When unpacking, you should identify these items:

* the interface card 3008R
* this manual

INSTALLATION

Please mount the card in a closed, screened case. The card features fastening holes for tapped screws M3. We recommend use of brass distance bolts or spacers to mount the card 10mm above the case base plate. Connect the power supply to the 230V connector (blue/black).

The power supply connectors are:
black: 230V AC inphase
blue: Neutral

Upon application of mains voltage the card is ready for operation.

DMX INPUT / OUTPUT

Connection to the DMX512 data line is by 5-pin onboard XLR connectors, as defined in the standards document. 3008R-ECO boards are fitted with srew type terminals, which serve as DMX input. For pin assignment see below.

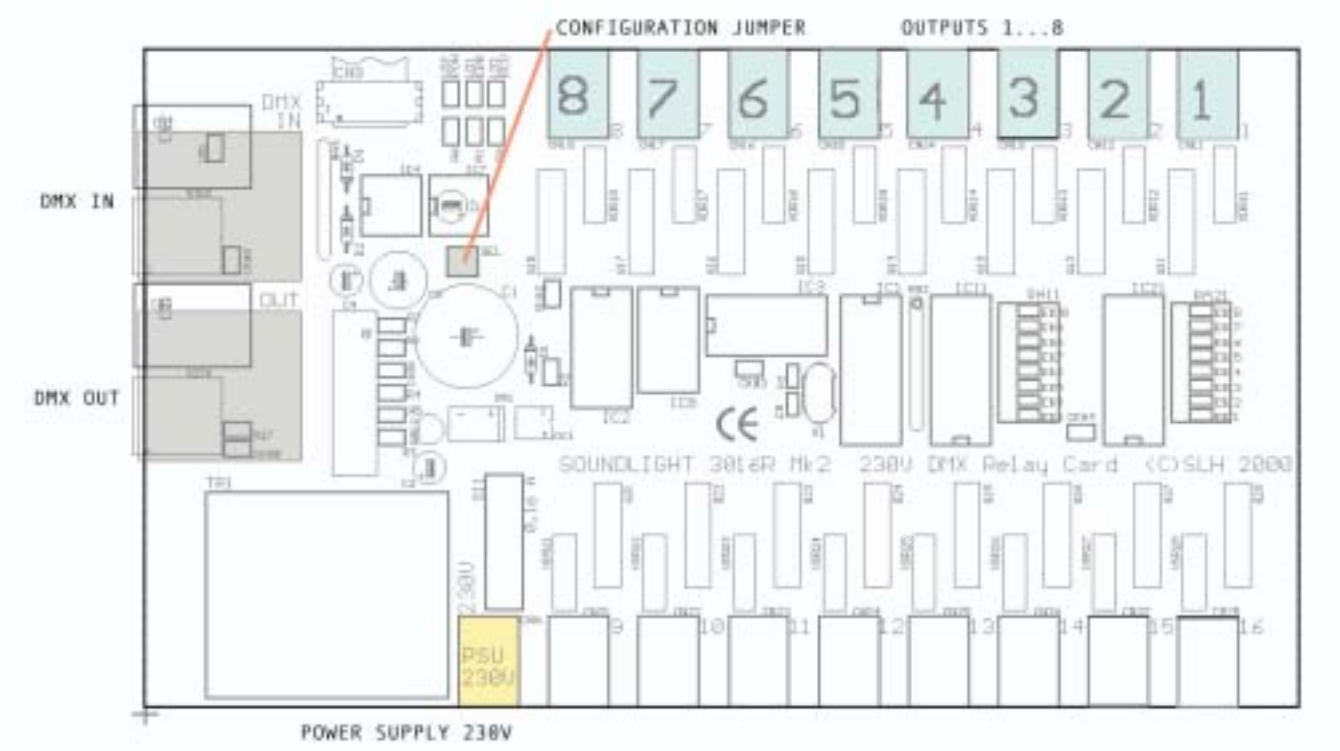
DMX INPUT	(male)
1	GND
2	DMX -
3	DMX +
4	not connected, thru-wired to Pin 4 DMX OUT
5	not connected, thru-wired to Pin 5 DMX OUT

DMX OUTPUT (female)

1	GND
2	DMX -
3	DMX +
4	not connected, thru-wired to Pin 4 DMX IN
5	not connected, thru-wired to Pin 5 DMX IN

DMX IN / OUT (screw terminal, ECO version)

1	GND
2	DMX -
3	DMX +



POWER CONNECTORS

The relay card 3008R consists of connectors for switched power inputs and outputs.

230V 230 V AC Power supply (2-pin spring terminal)

1	[BLUE]	Neutral
2	[BLACK]	Live 115/230V (see model)

CN21 Switched Output CH 1 (2-pin spring terminal)

1	S1
2	S2

Output connectors are paralleled by a VDR (260V Protective Transzorb Resistor)

CN22 Switched Output CH 2 (2-pin spring terminal)

1	S1
2	S2

Output connectors are paralleled by a VDR (260V Protective Transzorb Resistor)

CN23 Switched Output CH 3 (2-pin spring terminal)
1 S1
2 S2
Output connectors are paralleled by a VDR (260V Protective Transzorb Resistor)

CN24 Switched Output CH 4 (2-pin spring terminal)
1 S1
2 S2
Output connectors are paralleled by a VDR (260V Protective Transzorb Resistor)

CN25 Switched Output CH 5 (2-pin spring terminal)
1 S1
2 S2
Output connectors are paralleled by a VDR (260V Protective Transzorb Resistor)

CN26 Switched Output CH 6 (2-pin spring terminal)
1 S1
2 S2
Output connectors are paralleled by a VDR (260V Protective Transzorb Resistor)

CN27 Switched Output CH 7 (2-pin spring terminal)
1 S1
2 S2
Output connectors are paralleled by a VDR (260V Protective Transzorb Resistor)

CN28 Switched Output CH 8 (2-pin spring terminal)
1 S1
2 S2
Output connectors are paralleled by a VDR (260V Protective Transzorb Resistor)

SIGNAL INDICATORS

The state of the demultiplexer card is signalled with two indicator LEDs.

green: OPERATION (blinking)
red: ERROR (blinking)
Error blinking at data errors or loss of communication.
Both indicators will be flashing randomly in very short intervals regardless of state. This is normal and does simply indicate activity of the on-board decoder.

START ADDRESS SWITCHES

The three decimal coding switches set the start address, that is the address of the first channel to be docoded. The setting is fully decimal, no binary conversion is necessary as is with DIL switches.

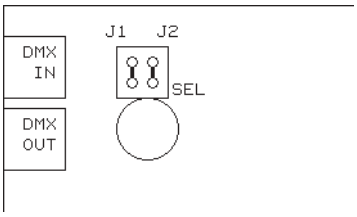
S1: Ones
S2: Tens
S3: Hundreds

If the switch block is set to non-defined address 000, all outputs are disabled regardless of the data received.

DMX CHANNEL ALLOCATION

The DMX relay card 3008R is using 8 DMX channels (data slots). These data will set outputs 1 thru 8 accrdingly. To increase switching security, a switching hysteresis has been added.

JUMPER SETTINGS



Two optional jumpers allow configuration of the 3008R relay card..

J1 set: alternative channel allocation set (see below)
J2 set: internal DMX line termination activated

ALTERNATIVE CHANNEL ALLOCATION

(not available with 3008R-ECO model)

When setting Jumper J1, the card will use 9 DMX data slots instead of 8. The first channel will then be used as configuration channel to set the mode of operation, subsequent channels (data slots) 2...9 will operate the relay outputs according to the appropriate function table.

DMX-Channel 1	Mode:
000-063	single channel mode with hysteresis <25% = off, >75% = on switching is as defined in channels 2...9
064-127	single channel mode without hysteresis trip point: 50% switching is as defined in channels 2...9
128-191	Bit-Mode, switching as defined by channel 2 contents Bit0 = Output 1. Bit1 = Output 2, Bit2 = Output 3 etc.
192-255	VU-Meter-Mode, as defined by channel 2 contents 000-032 = all outputs off 033-064 = output 1 065-096 = output 1 + output 2 097-128 = output 1 + output 2 + output 3 etc till 255 = all outputs on
DMX channels 2...9	OUTPUT (as described above)

SERVICE SETTINGS

The DMX relay card 3008R can be set to various service settings. This is to test individual outputs.
Settings include:

801:	Output 1 On
802:	Output 2 On
	etc. until
808:	Output 8 On

Please allow up to 1 second for the outputs to settle according to the test switch state.

SOLID STATE RELAYS

The card is equipped with 230V Solid State Relays, which allow a miximum current of up to 5 Amps - but then require absolute forced cooling. Thus a maximum operating power limit of 500W (2Amps) has been set. Switching voltage is 230V AC. The Solid State Relay is bypassed with a 260V Varistor for protection against voltage spikes.

Please note that the outputs require AC for correct operation. DC switching is **not** supported.

TECHNICAL DATA

Dimensions:	200 mm x 112 mm x 45 mm
Power Supply:	230V AC approx. 4 W (european model) or
	115V AC approx. 4W (US model)
DMX IN:	1 Unit Load
DMX OUT:	fed-through
Relay Out:	230V AC max. 5A, recommended maximum load 500W @ 230V
Order Code.:	3008R-EP

DISTURBANCES

If a trouble-free operation cannot be guaranteed, disconnect the relay card interface and secure it against unwanted operation. This is especially necessary, when
- the unit has visible damages;
- the unit does not operate;
- internal parts are loose;
- connection cables show visible damages.

LIMITED WARRANTY

This instrument ist warranted against defects in metarials and workmanship for a period of 12 month, beginning with the date of purchase. The warranty is limited to repair or exchange of the hardware product; no further liability is assumed. SOUNDLIGHT is not responsible for damages or for loss of data, sales or profit which arise from usage or breakdown of the hardware product. In germany, SOUNDLIGHT will repair or replace established defects in hardware, provided that the defective part is sent in, freight paid, through the responsible dealer along with warranty card and/or sales receipt prior to expiration of warranty.
Warranty is void:
- when modifying or trying to repair the unit without authorisation;
- modification of the circuitry;
- damages by interference of other persons;
- operation which is not in arccordance with the manual;
- connection to wrong voltage or current;
- misuse.

SERVICE

There are no parts within the DMX relais card 3001R which require the user's attention. Should your unit require servicing, please send it to the factory, freight paid.

INTERNET-HOTLINE

Please check our internet domain **http://www.soundlight.de** for new versions, updates etc. If you have any comments which may be worth considering, please send a message to ***info@soundlight.de***. We will check your message and reply accordingly.

SOUNDLIGHT
The DMX Company