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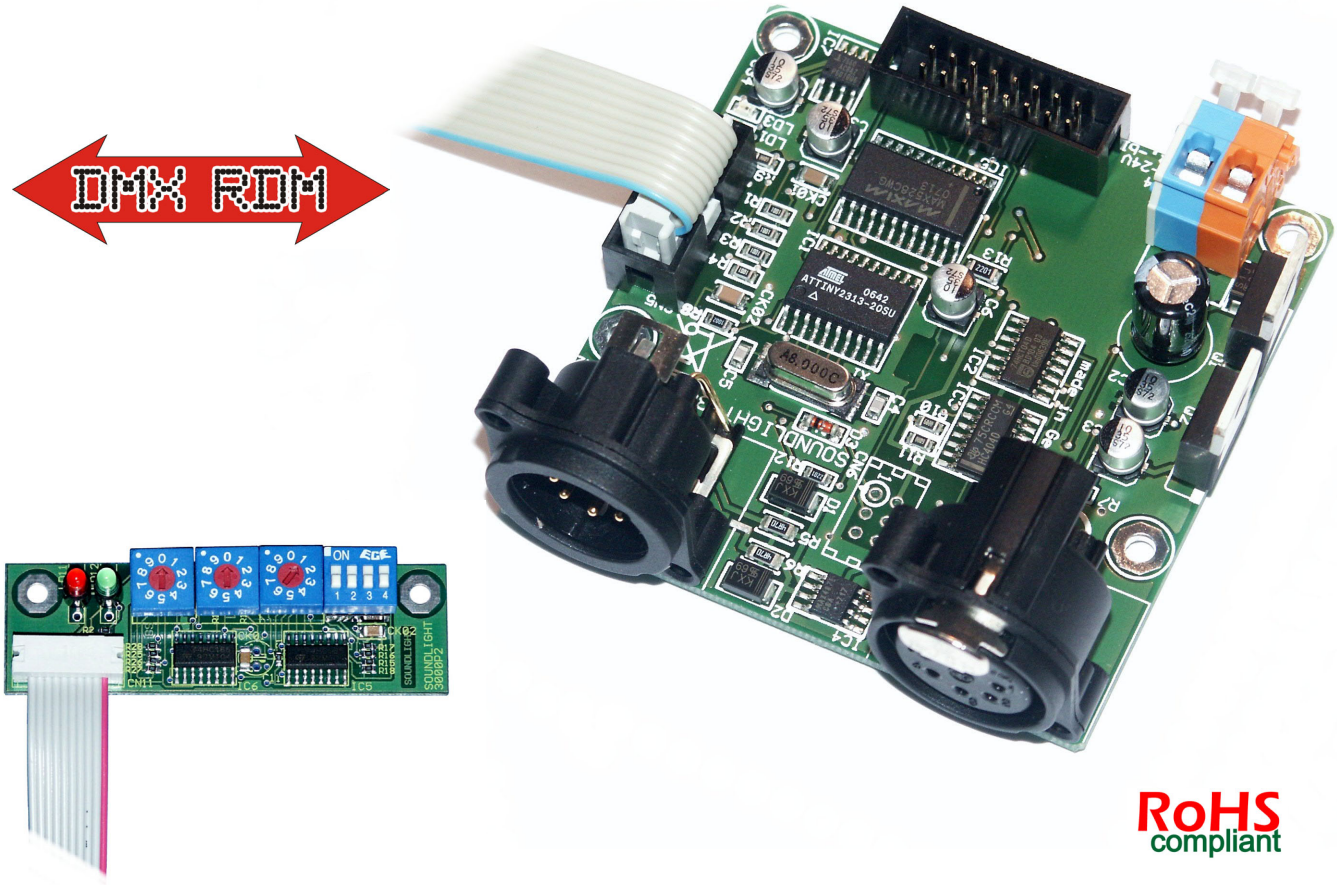
OPERATING MANUAL

DMX Demultiplexer 3006D-RDM Mk1



RoHS compliant

SOUNDLIGHT *The DMX Company* Bennigser Strasse 1 D-30974 Wennigsen Tel.+49 (0)5045-91293-11

Thank you for choosing a SOUNDLIGHT product.
The SOUNDLIGHT DMX Demultiplexer 3006D is an intelligent DMX demultiplexer, able to decode digital data complying with USITT DMX512/1990, DIN 56930-2, ANSI E1-11 DMX512-A, or ANSI E1-20 DMX RDM, respectively, to analog output voltages of 0-10V DC. The board 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/WETF/DIN

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

- **simple supply**
  The power supply may be derived from unregulated 15...24V DC, stabilization on board

- **high noise immunity**
  Special srl (slew rate limited) input circuitry provides for high noise immunity on data lines.

- **cost-effective**
  The SOUNDLIGHT 3006D-EP RDM is a cost-effective solution for many purposes.

Connectors

The DMX Demultiplexer Card 3006D-EP consists of the following interconnections:

CN1 **Universal connector (16 pin)**

1	Output 0...10V Channel 1
2	Output 0...10V Channel 2
3	Output 0...10V Channel 3
4	Output 0...10V Channel 4
5	Output 0...10V Channel 5
6	Output 0...10V Channel 6
7	Output 0...10V Channel 7
8	Output 0...10V Channel 8
9	nc (not connected, do not use)
10	nc (not connected, do not use)
11	nc (not connected, do not use)
12	nc (not connected, do not use)
13	nc (not connected, do not use)
14	nc (not connected, do not use)
15	GND 0V
16	Supply +15...+24V=

CN2 **DMX Input (XLR 5-pin)**

1	GND
2	-DMX
3	+DMX
4	connected to pin 4 CN3
5	connected to pin 5 CN3

CN3	**DMX Output (XLR 5-pin)**	
	1	GND
	2	-DMX
	3	+DMX
	4	connected to pin 4 CN2
	5	connected to pin 5 CN2
CN4	**Power Supply**	
	red	+15-24V DC
	blue	GND

ATTENTION! Reversing the PSU leads may damage the unit!

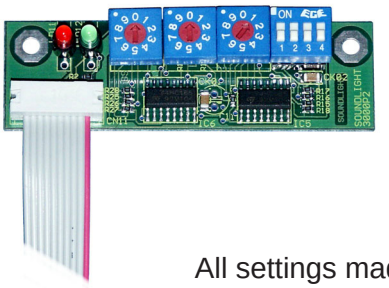
Signal Indicators

The status of the Demultiplex Board is signalled with two LED indicators.

green:	operation (blinking)
red:	ERROR (blinking)
	No error indication while normal operation
	Error blinking at data errors or loss of communication.

Start Address Switches

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



S1:	Ones
S2:	Tens
S3:	Hundreds

When the switch block is set to address 000, all outputs are disabled regardless of the data received.

All settings made on the address board are retained in the demultiplexer internal nonvolatile memory. The settings will remain active even when disconnecting the address board after the setting has been saved. Do not detach the address board while the demux is saving configuration data (both LEDs blink alternatively 4 times).

NOTE: We recommend to disconnect and to reconnect the address board only when the system is fully powered down. Both printed circuit boards contain static sensitive electronic devices. Please discharge yourself against GND before handling printed circuit boards. For maximum protection, leave pcbs in the antistatic bag when not used.

NOTE: Start address switches are disabled when programming a start address via RDM. Any address setting 900...999 will re-activate the switches and override existing RDM assignments.

Service Settings

The Demultiplexer 3006D-EP may be set to special service settings to test individual outputs. Selecting the address will set the appropriate output to 100% level.

801: Output 1 to 100%
802: Output 2 to 100%
803: Output 3 to 100%
....up to:
808: Output 8 to 100%

While in service mode, the green status LED is blinking fast.

Test Routines

The Demultiplexer 3006D-EP may be set to run internal self-test routines. This is to check the internal function of the Demultiplexer board.

997: all outputs are blinking synchronously
998: all outputs are ramping up from 0% to 100%
999: all outputs are blinking as running light

While in test mode, the green status LED is blinking fast.

DIP Switches

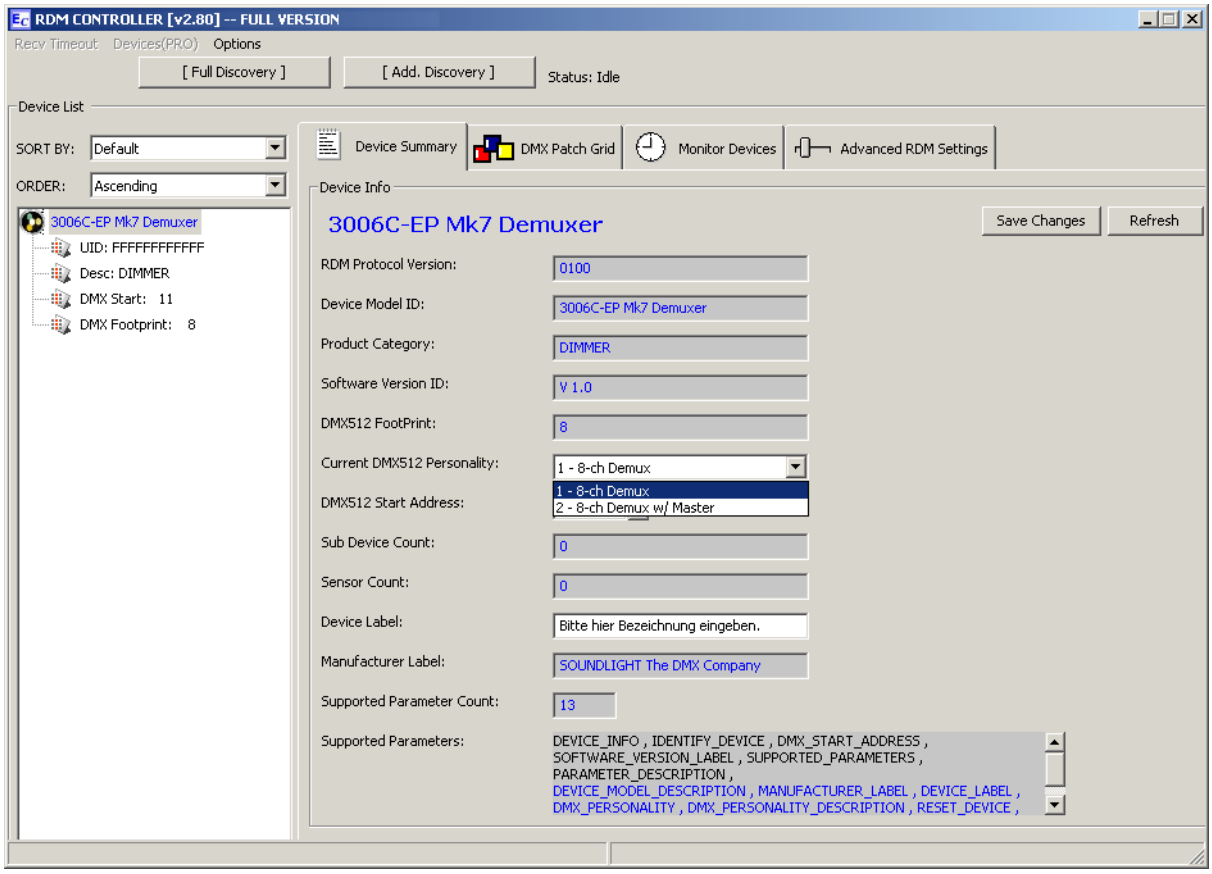
The demultiplexer 3006D-EP may be configured by the four DIP-switches on the adress board. When using a start address board 3003P, select functions F1...F4 respectively. Adress board 3005P or 3006P use menus for HOLD mode and PERSONALITY settings.

DIP-Switch	Function	
1	**DMX HOLD**	
	OFF (default)	non-hold, see DIP-Switch #2
	ON:	DMX HOLD, last setting active at signal loss
2	**Output level at signal loss**	
	OFF (default)	0% (off)
	ON	100% (full)
3	**DMX resolution**	
	OFF (default)	8 Bit mode
	ON	16 Bit mode
4	**MASTER MODE**	
	ON:	Common Master channel (CH 9 / 17) active
	OFF:	no master active

RDM Properties

The Demultiplexer 3006D-EP RDM conforms to ANSI E1-20 DMX RDM standard 1.0. The unit will be recognized as a DIMMER unit and can be configured

- as a 8-channel device featuring 8 individual outputs
- as a 9-channel device featuring 8 outputs plus one common master



Select the appropriate DMX PERSONALITY to configure the demultiplexer.

Special functions include:

RESET_DEVICE:	Using parameter =1 generates a warm reset using parameter = 255 generates a cold reset
DEVICE_POWER_CYCLES:	reads the number of device power-ups

NOTE: Start address and DIP switches are disabled when programming a start address via RDM. Any address setting 900...999 will re-activate the switches and override existing RDM assignments.

Technical Data

Dimensions:	70 mm x 70 mm x 45 mm
Supply:	15...24V DC, approx. 35mA without load
DMX IN:	1 Unit Load
DMX OUT:	>20 Unit Load, buffered
Analog Out:	0.4...+10.4V, typ. 2mA, max. 4 mA
Order code:	3006D-EP RDM

CE Conformity

This DMX demultiplexer is microprocessor controlled and uses high frequency. The interface has been tested in our EMC lab to comply with EN55015. To ensure the best performance regarding radiated and conducted emissions we suggest to install the interface card in a closed, conductive (e.g. metal)

housing, which must be connected to GND.

Please make sure that shielded data cable is used and the shield is connected properly to the GND pin. Shield must never make contact to other signal lines.

FCC Statement

This product has been tested and complies with the specifications for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used according to the instructions, may cause harmful interference to radio communications.
However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which is found by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment or devices
- Connect the equipment to an outlet other than the receiver's
- Consult a dealer or an experienced radio/TV technician for assistance

FCC Caution: Any change or modification to the product not expressly approved by SLH could void the user’s authority to operate the device.

Disturbances

If a trouble-free operation cannot be guaranteed, disconnect the decoder interface and secure it against unwanted operation. This is especially necessary, when

- the unit shows visible damages;
- the unit does not operate;
- internal parts are loose;
- interconnection cables show visible damages.

Limited Warranty

This instrument ist warranted against defects in materials 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.

End-of-Liftetime Procedures

Electronic devices are not domestic waste and must be disposed of properly. If the end of lifetime of this device has been reached, it must be recycled by your local WEEE recycling system or collection point.
SOUNDLIGHT is a WEEE registered company (registration code DE-58883929)

Service

There are no parts within the DMX Demultiplexer Board 3006D-EP which require the user's attention. Should your unit require servicing, please send it to the factory, freight paid.

Internet-Hotline

Please use 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.

Product page: www.soundlight.de/produkte/3006d-ep
DMX RDM site: www.rdm.soundlight.de
Manuals site: www.manuals.soundlight.de