

## OPERATING MANUAL

### DMX Booster/Splitter 3404A-H



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## Thank you for choosing a SOUNDLIGHT device.

The SOUNDLIGHT DMX Splitter/Booster 3404A-H is a highly sophisticated device, which was designed to buffer and distribute DMX light control signals complying with USITT DMX-512/1990 or DIN 56930/2, respectively. The unit 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 and displays the number of DMX channels received;
- future-proof  
The unit is software controlled and can be adapted to any change in protocol definition;
- unlimited channel count  
The number of DMX channels sent or received does not affect the operation of the DMX splitter/booster 3404A-H, since the unit can handle all transmission lengths.
- other protocols available  
Besides DMX512, the unit can handle all RS-485 based transmission protocols, such as AVAB, MARTIN, HIGH END SYSTEMS et al. When using other protocols as DMX512, the channel display, however, will not work.
- cost-effective  
The SOUNDLIGHT 3404A-H is a cost-effective solution for many purposes.

## VERSIONS

The booster / splitter is available as:

3404A-H      DIN rail mount unit, 1x DMX IN, 1x DMX THRU, 4x DMXOUT

Other models of our booster/splitter family include:

3401A-EP	printed circuit board, 1x DMX IN, 1x DMX OUT, opto-isolated line booster
3402A-EP	printed circuit board 1x DMX IN, 2x DMX OUT opto-isolated in/out
3402A-EPD	printed circuit board 1x DMX IN, 2x DMX OUT opto-isolated in/out, with Display
3402A-FG	stand alone unit 1x DMX IN, 2x DMX OUT opto-isolated
3402A-FGD	stand alone unit 1x DMX IN, 2x DMX OUT opto-isolated, with Display
3405A-EP	printed circuit board 1x DMX IN, 1x DMX THRU, 5x DMX OUT opto-isolated
3405A-EP2	printed circuit board (add-on board for 3405A-EP), 5x DMX OUT opto-isolated
3405A-FG	stand alone unit 1x DMX IN, 1x DMX THRU, 5x DMX OUT opto-isolated, with Display
3410A-FG	stand alone unit 1x DMX IN, 1x DMX THRU, 10x DMX OUT opto-isolated, with Display

## NOMENCLATURE

This document uses these signs:



DANGER ! May cause harm to user and/or equipment



INFO: How to setup your device



INFO: Statusinformation



## CONNECTORS

The booster/splitter is using cage clamp terminals for both, input and output. This type of connector is very reliable, ruggedized and easy to use. To open, press lever, insert cable and release. Contact assignment:

The DMX data outputs are optically isolated, and are GND- and potential-free referenced to the DMX signal input.

**DMX INPUT**                      Signal input for control signals according to USITT DMX512/1990 or DIN 56930-2

Pin 1	grey	screen / GND
Pin 2	blue	DMX - (inverted)
Pin 3	red	DMX + (normal)

**DMX THRU**                      unbuffered or active buffered output (depending on jumper setting)

Pin 1	grey	screen / GND
Pin 2	blue	DMX - (inverted)
Pin 3	red	DMX + (normal)

**DMX OUTPUTS**                4 individual outputs, galvanically isolated to the DMX512 signal input

Pin 1	grey	screen / GND
Pin 2	blue	DMX - (inverted)
Pin 3	red	DMX + (normal)

**POWER SUPPLY**                230V AC 50Hz approx. 4W

Pin 1	blue	Neutral
Pin 2	black	Live 230V AC

## JUMPER

J1:	open:	DMX input not terminated
	closed:	DMX input terminated
J2:	open:	DMX thru directly fed thru from DMX data input
	closed:	DMX thru actively buffered

## POWER SUPPLY



The power supply is 230V AC 50 Hz. Mains voltage can be dangerous to your health; connections must be carried out by a qualified technician only. Make sure the unit has been disconnected from mains before making any other connections to the booster/splitter. Verify before re-applying power.

## SIGNAL INDICATORS



Signalling is only provided on models with display fitted.  
The state of the booster/splitter card is signalled by a 3-digit LED display.

<u>Indication (e.g.)</u>	<u>Meaning</u>	<u>Description</u>
- - -	empty	no data received
Err	ERROR	no DMX data reception, or non-standard signal (e.g. other RS-485 protocol)
brk	BREAK	break error (signal error)
syn	SYNC	sync error (sync timing signal error)
512	CHANNELS	data reception o.k., number of channels received is being displayed

## TECHNICAL DATA

Dimensions	114mm (W) x 67mm (H) x 114 mm (D)
Supply:	230V AC 50 Hz approx. 4 W
DMX IN:	1 Unit Load
DMX OUT:	>10 unit load, buffered, optically isolated to input, SRL driver
Display:	3 digit, status and channel count
Order No.:	3404A-H

## CE CONFORMITY



This DMX splitter/booster is microprocessor controlled and uses high frequency (8 MHz quartz). The interface has been tested in our EMC lab to comply with EN5022B and IEC65/144.

To ensure the best performance regarding radiated and conducted emissions 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.

## DISTURBANCES

If a trouble-free operation cannot be guaranteed, disconnect the booster/splitter 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 is warranted against defects in materials and workmanship for a period of 12 months, 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 accordance with the manual;
- connection to wrong voltage or current;
- misuse.

## SERVICE

There are no parts within the booster/splitter 3404A-H 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](mailto:info@soundlight.de).

## END-OF-LIFETIME



If the end of the lifetime of this product has been reached, it must be disposed of properly. Electronic devices must not be placed in domestic waste. They are to be collected by public recycling systems. Consult your local authorities for more information regarding the whereabouts of your next collection station. SOUNDLIGHT is a WEEE registered company.