SOUNDLIGHT
The DMX Company

OPERATING MANUAL

DMX Booster/Splitter 3404C-FG RDM Mk1
DMX Booster/Splitter 3405A-FG RDM Mk1
DMX Booster/Splitter 3408A-FG RDM Mk1

DMX RDM

RoHS compliant

Thank you for choosing a SOUNDLIGHT device.

The SOUNDLIGHT DMX Splitter/Booster 3404C-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, ANSI E1-11 DMX512-Aand ANSI E1-20 dMX RDM, 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 an 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 3404C-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 then DMX512, the channel display, however, will not work.

-   cost-effective
    The SOUNDLIGHT 3404C-FG / 3405A-FG / 3408A-FG is a cost-effective solution for many purposes.

VERSIONS

The booster / splitter models are available as:

DIN RAIL MODELS:
3404A-H	DIN rail mount unit,1x DMX IN, 1x DMX THRU, 4x DMXOUT (common isolation)
3404B-H	DIN rail mount unit,1x DMX IN, 1x DMX THRU, 4x DMXOUT (individually buffered/isolated)
3404C-H	DIN rail mount unit,1x DMX IN, 1x DMX THRU, 4x DMXOUT (individually buffered/isolated) DMX RDM compatible
3404LC-H	DIN rail mount unit 5U,1x DMX IN, 1x DMX THRU, 4x DMXOUT (common isolation) DMX RDM compatible
3406LC-H	DIN rail mount unit 6.5U,1x DMX IN, 1x DMX THRU, 6x DMXOUT (common isolation) DMX RDM compatible
3408LC-H	DIN rail mount unit 6.5U,1x DMX IN, 1x DMX THRU, 8x DMXOUT (common isolation) DMX RDM compatible

PCB and Stand Alone Models:
3401A-EP	printed circuit board, 1x DMX IN, 1x DMX OUT, opto-isolated line booster
3401B-H	DIN rail mount RDM compatible Line Booster, opto-isolated
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

19" rack mount units:
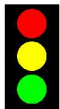|	
3405A-FG	19" rack mount unit 1x DMX RDM IN, 1x DMX THRU, 1x DMX OUT, 4x DMX RDM OUT, opto-isolated, with Display
3408A-FG	19" rack mount unit 1x DMX RDM IN, 1x DMX THRU, 8x DMX RDM OUT, opto-isolated, with Display
3410A-FG	19" rack mount unit 1x DMX IN, 1x DMX THRU, 10x DMX OUT opto-isolated, with Display

This document uses these indicators:

 DANGER ! May cause harm to user and/or equipment

 INFO: How to setup your device

 INFO: Status Information

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 bufferd output (depending on jumper setting)
Pin 1   grey   screen / GND
Pin 2   blue   DMX - (inverted)
Pin 3   red   DMX + (normal)

DMX OUTPUTS   4/5/8 individual outputs, galvanically isolated to DMX512 signal input
Pin 1   grey   screen / GND
Pin 2   blue   DMX - (inverted)
Pin 3   red   DMX + (normal)

Model 3404C-FG:	4 DMX RDM OUTPUTS
Model 3405A-FG:	1 DMX OUTPUT (NON-RDM, OUT1)
	4 DMX RDM OUTPUTS (OUT2...5)
Model 3408A-FG:	8 DMX RDM OUTPUTS

POWER SUPPLY   230V AC 50Hz approx. 4W
Pin 1   blue   Neutral
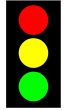Pin 2   black   Live 230V AC
Pin 3   greeenPE (Protective Earth)

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. Make sure the PE terminal is connected.

SIGNAL INDICATORS

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

Indication (e.g.)	Meaning	Description
- - -	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)
rdn	RDM	RDM signal packet detected
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, individually buffered, individually optically isolated to input, SRL driver
Display:	3 digit, status and channel count
Order No.:	3404C-FG / 3405A-FG / 3408A-FG

DMX RDM PROPERTIES

DMX RDM

The splitter can process DMX512, DMX512-A and/or DMX RDM telegrams. In respect to RDM traffic, the splitter acts as "invisible" device, which cannot be discovered or addressed. Please refer to the relevant product page (see below) for more information regarding RDM properties.

Product pages:
3404C-FG   www.soundlight.de/produkte/3404c-fg
3405A-FG   www.soundlight.de/produkte/3405a-fg
3408A-FG   www.soundlight.de/produkte/3408a-fg

CE CONFORMITY

$C\epsilon$

This DMX splitter/booster is microprocessor controlled and uses high frequency (16 MHz quartz). The interface has been tested in our EMC lab to comply with DIN EN55015.

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 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 booster/splitter 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.

PRODUCT INFO

More product data can be found at the relevant internet product page.

Product pages:
3404C-FG   www.soundlight.de/produkte/3404c-fg
3405A-FG   www.soundlight.de/produkte/3405a-fg
3408A-FG   www.soundlight.de/produkte/3408a-fg

Foreign language product manuals are available at: www.manuals.soundlight.de

END-OF-LIFETIME

When the end of the lifetime of this product has been reached, ist 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 (DE58883929).