



D.O.TEC[®] PRODUCER.COM

Quickstart Guide



Version 1.3

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About This Manual

This quick start guide gives a compact overview for use of PRODUCER.COM including the PRODUCER.COM - REMOTE and software remote.

For more details please consult the reference guide which is available for download:

www.directout.eu/en/support/downloads/producer.com.html

How to Use This Guide

Use the Table of Contents at the beginning of the guide to locate help on a particular topic.

You can access more information and latest news by visiting the DirectOut website at www.directout.eu.

Conventions



Tip

The following symbols are used to draw your attention to:



Note

Tips – indicate useful tips and short cuts.



Warning

Notes – are used for important points of clarification or cross references.

Warning

Warnings – alert you when an action should always be observed.

Introduction

D.O.TEC[®] PRODUCER.COM is a MADI embedder/dembedder unit for use in production environments where audio signals and/or control data have to be transported within a MADI signal. A variety of different audio interfaces and serial ports may be used to embed or deembed these signals into or from a MADI stream.

Signal routing and all other functions are adjusted by a hardware remote controller (PC REMOTE) or a remote software on a Windows PC.



PRODUCER.COM



PRODUCER.COM REMOTE



SOFTWARE REMOTE

CHAPTER 1: Interfaces

PRODUCER.COM provides a variety of audio and non-audio interfaces. The number of inputs and outputs is summed up in the table below. The last row explains how the signals are transmit within the MADI signal.

Ports	Description	Number of channels / signals	MADI bandwidth
MADI Ports:	2 x MADI input and output (Optical SC multi-mode connectors)	256 (128 each)	256 audio-channels
AES Ports	2 x AES input and output (XLR connectors)	8 (4 each)	8 audio-channels
ADAT Ports	2 x ADAT input and output	32 (16 each)	32 audio-channels
RAVENNA Ports	2 x Ethernet RJ45 (100 Mbit/s)	8	8 audio-channels
Microphone	1 x Mic input (XLR connector, phantom power switchable)	1	1 audio-channel
Line Input	1 x mono, 6.3 mm TRS jack (balanced)	1	1 audio-channel
Auxiliary Output	1 x stereo, 6.3 mm TRS jack (unbalanced)	2	--
Line Output	1 x stereo, 2 x XLR connectors (balanced), trimmable	2	--
Headphone Output	1 x stereo, 6.3 mm TRS jack, trimmable	2	--
MIDI	1 x MIDI input and output, DIN connectors	1	Userbit
Telephone	2 x RJ45 connectors (Ethercon), MFV dial	4	4 audio-channels
Serial Communication	RS-232 and RS-422 / 485	2	Userbit
General Purpose	4 x GPI (2 x optocoupler, 2 x Voltage input with pull up) 4 x GPO (2 x optocoupler, 2 x FET switch, e.g. red light)	8	Userbit

CHAPTER 2: Remote Control

The hardware remote provides access to all controls of the device. A display informs about the adjusted monitor level of all three monitor outputs/busses.

Knobs are used for volume control and menu navigation.

Push buttons are used for dedicated functions, such as DIM, MUTE, Talkback, Listen, Red / White signal, calling telephone and for selection of monitor sources.



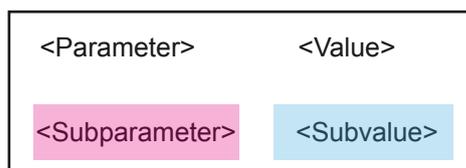
PRODUCER.COM REMOTE

MENU - Navigation

Use the knob labelled “MENU”. Press to enter and navigate the menu and turn for changing parameters. The small push buttons (MAIN and PHONES) can also be used for navigation within the menu.

The menu display is organized into four different categories:

Display
Hardware remote



The menu items are categorized into <source>, <destination>, <bus/virtual channel> and <non audio>.

Source

Source = signal port can be routed to a <destination>

Destination

Destination = signal port that receives signal from a <source>

Bus / Virtual Channel

Bus / Virtual Channel = can be both, <source> or <destination>, DSP operation (dim, mute) is applied to <bus>

Non Audio

Non Audio = system controls, control data or trigger conditions

MENU - Audio Routing

The signal routing provides distribution and exchange between all digital interfaces and partially from or to analog interfaces.

Busses are used for dsp processing, such as attenuation or mute function.



Note

Stereo output sink that is routed as stereo pair (odd = left channel, even = right channel). The channel pair is patched irrespective the selection of the odd or even number of the channel pair.

To illustrate the routing principle a few examples are explained on the following pages:

Audio Routing - MADI Local (MADI 1)

Parameter	Subparameter	Value	Subvalue	Explanation
MADI Loc MADI Loc = MADI 1 MADI Com = MADI 2 ADAT 1 = 1 - 8 ADAT 2 = 9 - 16 AES 1 = 1 - 2 AES 2 = 3 - 4	1 - 64	no route		no signal to MADI Loc (1-64)
		MADI Loc	1 - 64	MADI Loc (1-64) to MADI Loc (1-64)
		MADI Com	1 - 64	MADI Com (1-64) to MADI Loc (1-64)
		ADAT	1 - 16	ADAT (1-16) to MADI Loc (1-64)
		AES	1 - 4	AES (1-4) to MADI Loc (1-64)
		RAVENNA	1 - 8	RAVENNA (1-8) to MADI Loc (1-64)
		Mic In	1 - 40	Mic In (gain setting) to MADI Loc (1-64)
		Line In	1 - 40	Line In (gain setting) to MADI Loc (1-64)
		Main Monitor	1 - 2	Main Monitor (1-2) to MADI Loc (1-64), with DSP operation
		Talkback		Talkback to MADI Loc (1-64), with DSP operation
		Listen		Listen to MADI Loc (1-64), with DSP operation
		Tel 1		Telephone 1 Output to MADI Loc (1-64)
		Tel 2		Telephone 2 Output to MADI Loc (1-64)
		1:1		sets routing to corresponding port MADI Com (1-64) In to MADI Loc (1-64) Out
Serial		Serial signal to MADI Loc (1-64)		

Audio Routing - MAIN MONITOR

MAIN MONITOR is a stereo bus with A/B source switching.

Parameter	Subparameter	Value	Subvalue	Explanation	
Main Monitor MADI Loc = MADI 1 MADI Com = MADI 2 ADAT 1 = 1 - 8 ADAT 2 = 9 - 16 AES 1 = 1 - 2 AES 2 = 3 - 4 Stereo bus; i.e. selection of one channel involves patching of the corresponding channel. E.g. MADI Loc 11 to Main Monitor A => MADI Loc 11 and 12 are patched.	A	no Route		no signal to Main Monitor	
		MADI Loc	1 - 64	MADI Loc (1-64) to Main Monitor	
		MADI Com	1 - 64	MADI Com (1-64) to Main Monitor	
		ADAT	1 - 16	ADAT (1-16) to Main Monitor	
		AES	1 - 4	AES (1-4) to Main Monitor	
		RAVENNA	1 - 8	RAVENNA (1-8) to Main Monitor	
		Mic In	1 - 40	Mic In (gain setting) to Main Monitor	
		Line In	1 - 40	Line In (gain setting) to Main Monitor	
	B	alternative routing (B) - same values and subvalues as monitor <A> are available			
	Volume	--	1 - 64	Sets Volume level	
	Dim	Attenuation	1 - 64, Mute	Sets attenuation level for DIM ON = enable DIM	
	Talk	On, Off	1 - 64, Mute	Sets attenuation level (DIM) for TALK, ON = enable DIM	
	Listen	On, Off	1 - 64, Mute	Sets attenuation level (DUCK) for LISTEN, ON = LISTEN is added to bus	
	Call 1	On, Off	1 - 64, Mute	Sets attenuation level (DUCK) for CALL 1, ON = Call to bus (Tel 1 is added to bus)	
	Call 2	On, Off	1 - 64, Mute	Sets attenuation level (DUCK) for CALL 2, ON = Call to bus (Tel 2 is added to bus)	

Signal Routing

DSP Processing

Audio Routing - TALKBACK

TALKBACK is a virtual channel (mono) that may trigger dsp function on the busses.

Parameter	Subparameter	Value	Subvalue	Explanation
Talkback MADI Loc = MADI 1 MADI Com = MADI 2 ADAT 1 = 1 - 8 ADAT 2 = 9 - 16 AES 1 = 1 - 2 AES 2 = 3 - 4	Input	no Route		no signal to Talkback
		MADI Loc	1 - 64	MADI Loc (1-64) to Talkback
		MADI Com	1 - 64	MADI Com (1-64) to Talkback
		ADAT	1 - 16	ADAT (1-16) to Talkback
		AES	1 - 4	AES (1-4) to Talkback
		RAVENNA	1 - 8	RAVENNA (1-8) to Talkback
		Mic In	1 - 40	Mic In (gain setting) to Talkback
		Line In	1 - 40	Line In (gain setting) to Talkback

MENU - Control Data

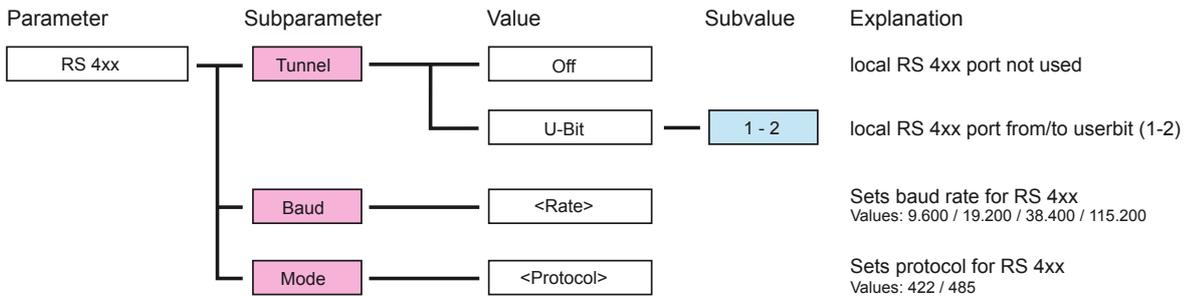
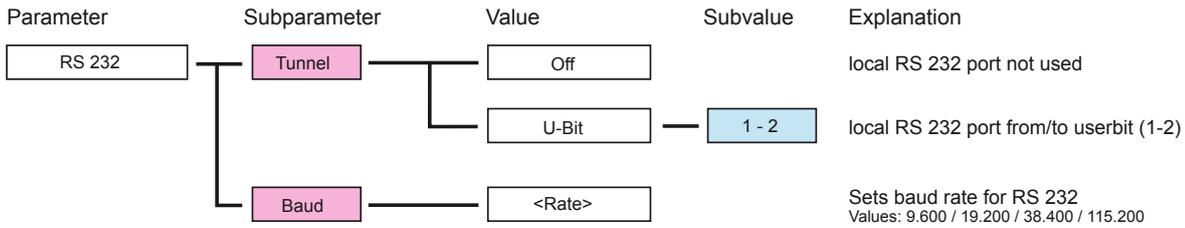
Control Data - Serial Ports

Serial signals can be transported by using userbits of a MADi frame.

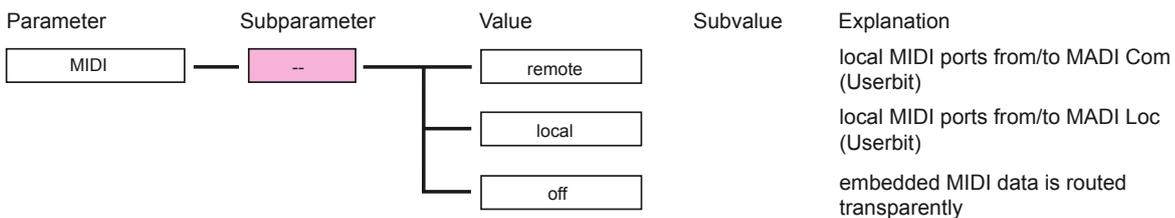


Note

All data is embedded into the MADi Com stream and taken from there. To pass through already embedded data from MADi Local to MADi Com set Tunnel to 'off' for the respective serial port.



Control Data - MIDI



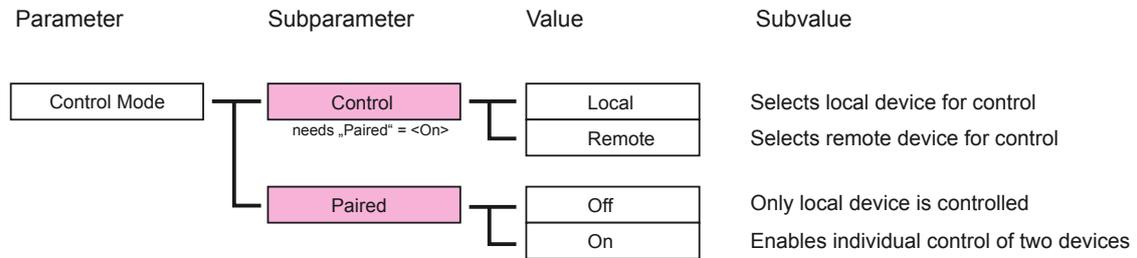
Note

Operation of two PRODUCER.COMs: the tunnel for transmission of control data must be adjusted on both devices separately.

MENU - System Settings

Control Mode

PRODUCER.COM - REMOTE can control up to two devices. The controlled device has to be selected in the menu (requires "Paired" = <On>).



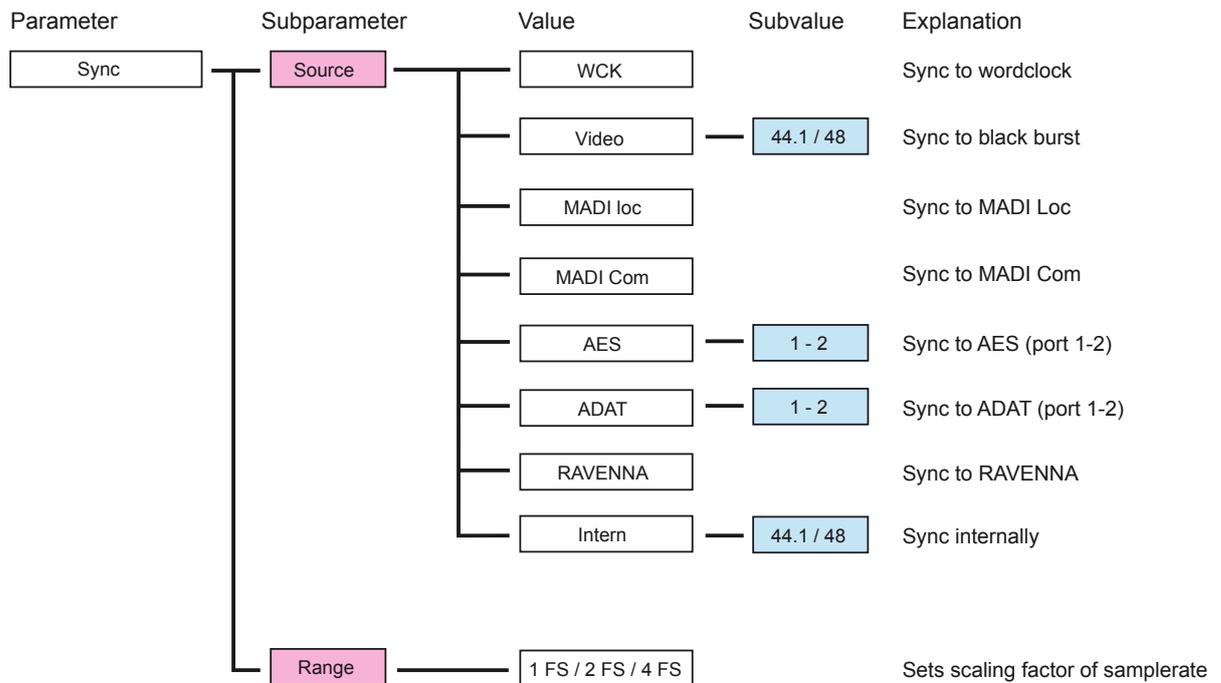
Remote condition for the second device: MADI Com (MADI 2) needs to be connected **directly** between both devices and "paired mode" must be set <On>.



Note

Clock Setting

Select the system clock and the scaling factor of the samplerate.

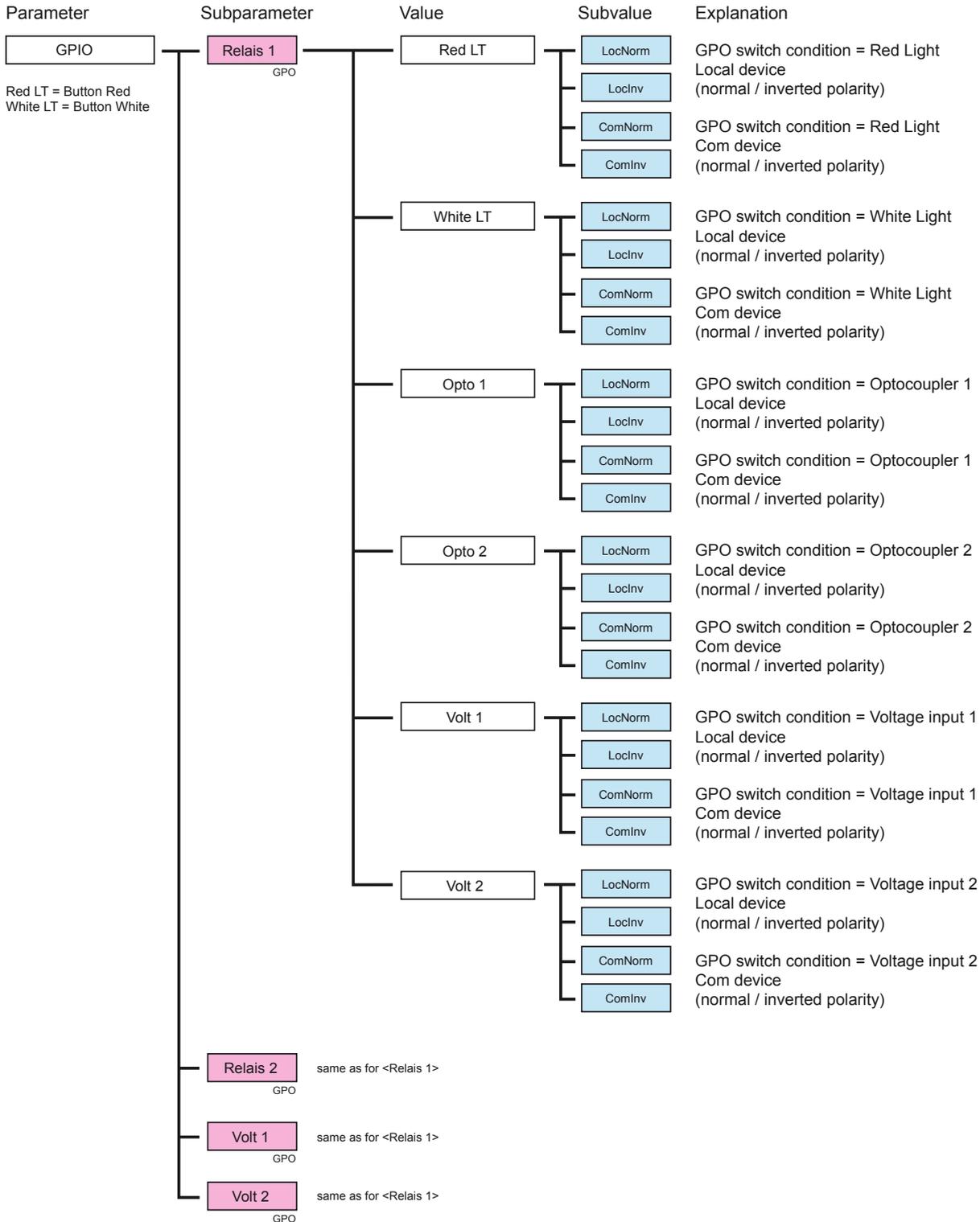


Control Data - GPIO

4 GPOs can be triggered by 4 GPIOs or push buttons or footswitch.

GPO: There are 2 solid state relays (Relais 1/2) and 2 FET switches (Volt 1/2) for switching; additionally a voltage source (12 V / max. 200 mA) can be used e.g. for signal lights together with the solid state relays and FET switches.

GPIO: 2 voltage inputs (Volt 1/2) and 2 optocouplers (Opto 1/2).



Status Menu

Pressing the <MENU> knob longer than 2 seconds calls the system menu to access system information and system tools. To exit the system menu tip <MENU> again.

Turn the <MENU> knob to navigate the system menu.

Available information:

- measured base sample rate
- lock state of all digital inputs, wordclock and video input
- temperature of the host
- firmware version of host and remote

Available tools:

- selftest
- factory reset

Once the input signal of a digital input does not match the selected system clock source a “!” will appear on the display (equivalent to the blinking LED ON (Sync) at the front panel of the host).



Note



Display PRODUCER.COM REMOTE

CHAPTER 3: Software Remote

The software remote provides access to all controls of the device via GUI - extended by a preset management and an editor for the functions of the push buttons. Configure a preset “offline” and transfer it when it is needed.

For use of the software remote please download the latest drivers and software versions from our website:

<http://www.directout.eu/en/support/downloads/producer.com.html>

Quick Setup

1. Connect PRODUCER.COM to your PC. If you do this for the first time you will have to install the D.O.TEC drivers.



Note

Guide for the installation of the USB drivers:

http://www.directout.eu/upload/dokumente/install_usb_control_e_v10.pdf

2. Installation of the software remote. Launch “PCOM_Remote_setup.msi” and follow the instructions.
3. Start PRODUCER.COM Remote
4. Select the virtual COM-Port of PRODUCER.COM in the upper right corner of the toolbar.
5. Click the green “Connect” button.

To reset your PRODUCER.COM host to defined values please load “Preset 1.pcp” located in your installation folder and click “Transmit Preset to Host” (blue arrow in the toolbar).



Tip

All parameters are overwritten by the hardware once the software remote is set to <online>. Make sure that you store your settings in a preset **before** connecting.



Note

If you experience any difficulties setting up the software or for questions or comments please contact <http://support.directout.eu>.

Views of the GUI



GUI - Remote



GUI - Other I/Os

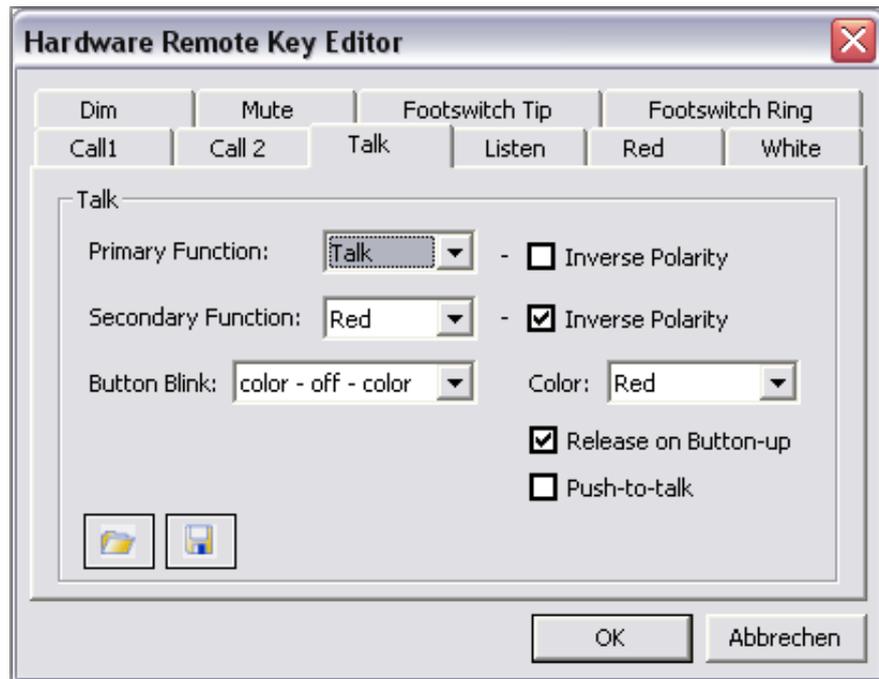
Key Editor

Eight push buttons on the hardware remote are used with dedicated functions (DIM, MUTE, ...). To customize the setup the function of each button may be changed in the key editor. A button can have a primary and secondary function; e.g. TALK switches the talkback signal to the routed output and disables the red light.



Note

Button labels and functions are named identically.



GUI - Key Editor

Function	Comment
Primary Function	must be assigned
Secondary Function	may be assigned optionally - default = <inactive>
Inverse Polarity	function is inverted
Color	button color
Button Blink	blinking behaviour after timeout
Release on Button-up	switch off is executed after button is released (not while pushing it)
Push-to-talk	push button behaviour - function is switched on as long as button is pressed



Note

End of the Quickstart Guide - for more details please consult the reference guide which is available for download:

www.directout.eu/en/support/downloads/producer.com.html