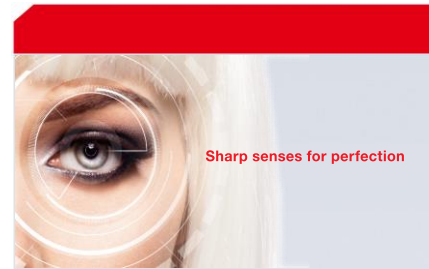


Manual

Input Audio Switch



Sharp senses for perfection

Softline

Modline

Conline

Boardline

Avidline

Pixline

Application



■ Measurement Technology beyond the decimal point

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1. Safety instructions

The Input Audio Switch is intended for use indoors. It may not be exposed to moisture. If the device is brought from a cold environment into a warm one, it must be allowed to stand for at least one hour without the power cord and other cables connected until any condensation moisture has dried.

The device has no parts that can be replaced by the user. Any repair must be carried out by a trained technician. Before opening the housing, disconnect the power cord and wait for about a minute.

Before starting the device for the first time, be absolutely sure that the correct operating voltage has been configured (you can see this on the viewing window on the power cable connection). If it is configured incorrectly, the device can be damaged.

Fuse inserts must be replaced with the same type. If other types are used, there is a risk of fire.

2. General information

The Input Audio Switch is a switching unit for input signals. Up to 16 devices can be connected in series, enabling the connection of up to 128 input channels. These can then be switched on the two input channels of the AudioAnalyzer. The device is controlled via either USB2.0 or RS232C with simple text commands.

There is also a control application named Toolmonitor Audio Switch which provides a Graphical User Interface for control of the Audio Switch. External software can be used to control the Toolmonitor Audio Switch completely remotely. COM/DCOM or a .Net assembly can be used as the interface. This allows the Toolmonitor Audio Switch to be integrated into many different applications (MCD TestManager CE, LabView[®], Microsoft Visual Studio[®] (C#, C++, Visual Basic), Microsoft Office[®] (for example Excel[®]), Open Office[®]).

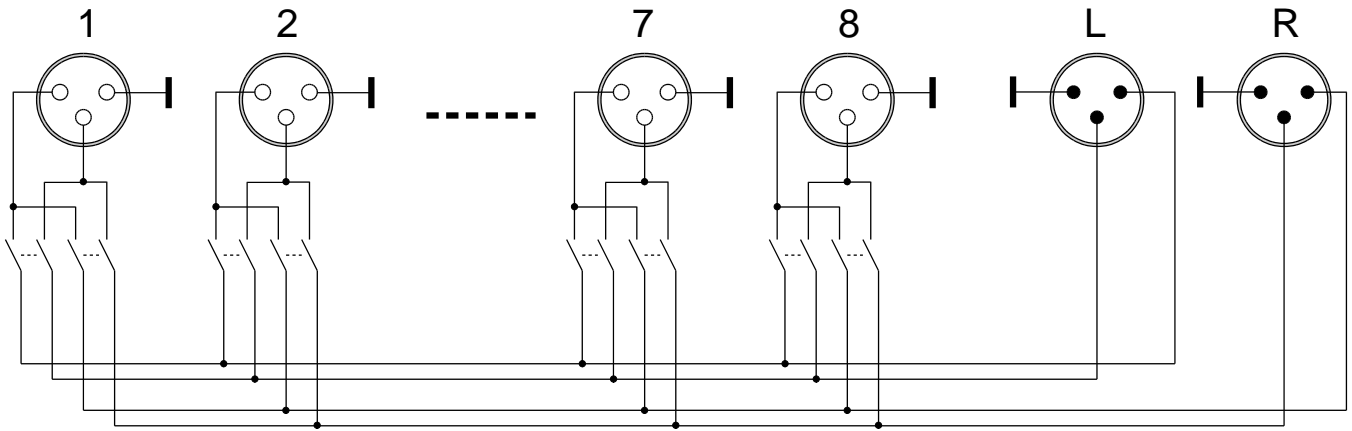
Order number: 122084

3. Scope of delivery

- 1x Input Audio-Switch
- 1x USB storage card with installation software
- 1x power cord 1.8m

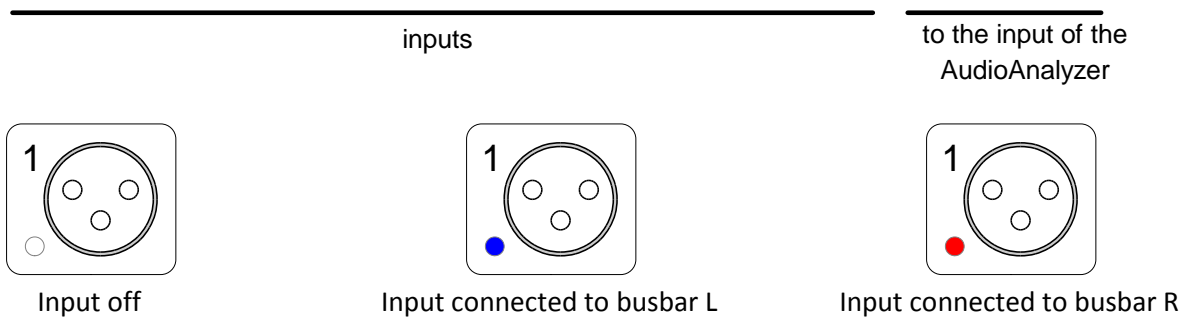
4. Switching scheme

The inputs can optionally be connected to busbar "L" or "R". Only one input at a time can be active on each busbar. If an input is enabled on a busbar, all the other inputs on this busbar will be turned off.

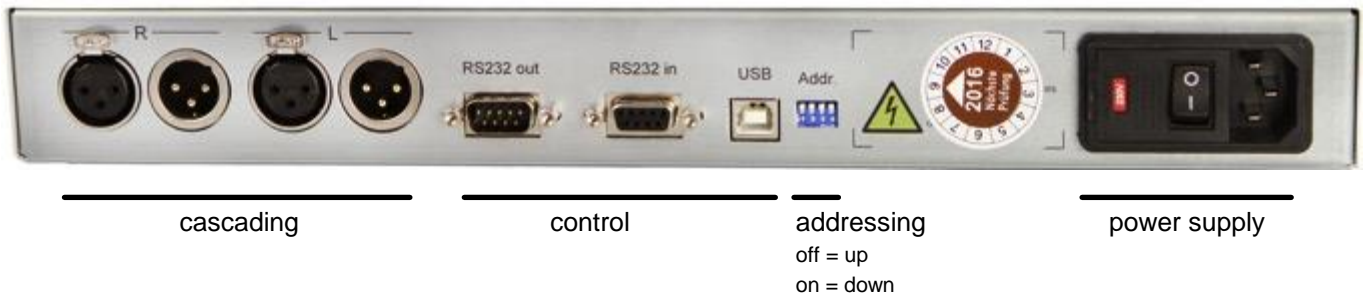


5. Connections

Inputs 1 through 8 are connected to the signal sources. Connections L and R are connected to the inputs of the AudioAnalyzer. Other signal sources can be connected by cascading additional Audio Switches. If a connection is connected to one of the two busbars L and R, the corresponding signal lamp will light up in blue or red. If the connection is not connected, the signal lamp is off.



The back of the device has the connections for cascading multiple units, the control connections, the device addressing, and the connector for the power supply.



Address	Switch position	Channels	Address	Switch position	Channels
0	Off – Off – Off – Off	0 – 7	8	Off – Off – Off – On	64 – 71
1	On – Off – Off – Off	8 – 15	9	On – Off – Off – On	72 – 79
2	Off – On – Off – Off	16 – 23	10	Off – On – Off – On	80 – 87
3	On – On – Off – Off	24 – 31	11	On – On – Off – On	88 – 95
4	Off – Off – On – Off	32 – 39	12	Off – Off – On – On	96 – 103
5	On – Off – On – Off	40 – 47	13	On – Off – On – On	104 – 111
6	Off – On – On – Off	48 – 55	14	Off – On – On – On	112 – 119
7	On – On – On – Off	56 – 63	15	On – On – On – On	120 – 127

6. Cascading

Up to 16 Input Audio Switches can be switched in series to provide up to 128 inputs. Only one control connection is required for the entire chain. The connection to the controlling PC is at the start of the chain (USB or RS232). The control signals are then sent from device to device.



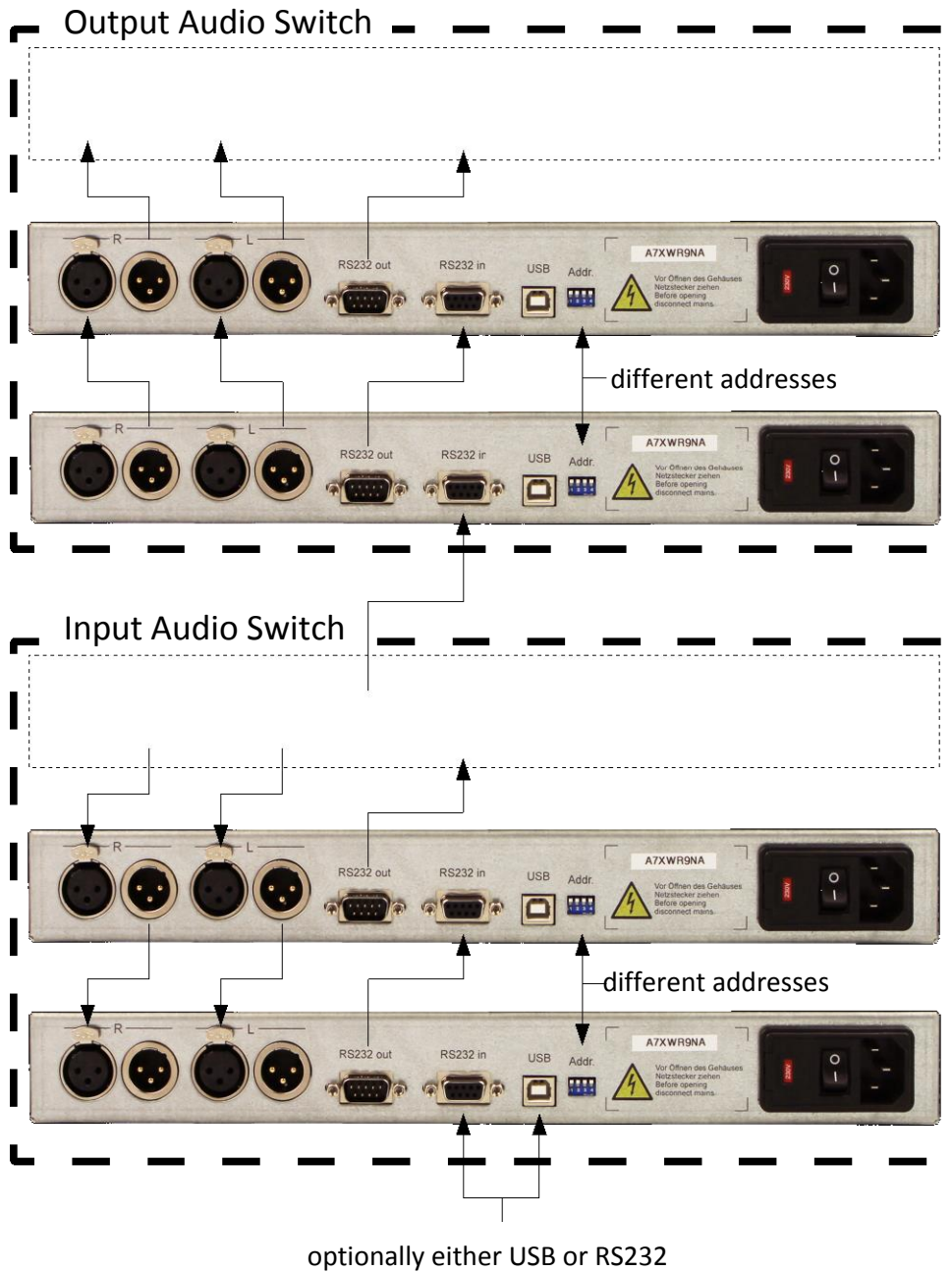
The PC should only be connected to the middle or end of the chain, as this can lead to malfunctions.

The total length of the control line may not exceed 15m. On many devices, short connection cables will therefore be required.

No address may appear more than once in the control chain for the input switches or for the output switches. However, an input switch may have the same address as an output switch.

Audio lines may not be connected between input and output switches.

6.1. Connection schematic



7. Technical data

Electrical characteristics		
Operating voltage	115 / 230 VAC 47 – 63Hz	When changing the input voltage, disconnect the power cord and set the voltage on the power filter!
Connection power	5W	
Fuse	2x 50mA slow blow	Glass fuse inserts, 5x20mm
Switching power	50Vrms / 0.5A	
Mechanical characteristics		
Dimensions (H x W x D)	44mm x 350mm x 135mm	without connectors or supporting feet
Connections on back	IEC power plug	Power supply
	(1) USB-B	Control input from PC (alternative to RS232)
	(1) D-sub 9-pin female connector	RS232 input from previous switch or PC (alternative to USB)
	(1) D-sub 9-pin male connector	RS232 chaining to next switch
	(2) XLR male	Feed from previous switch
	(2) XLR female	Feed to next switch
Control elements on back	4-pin DIP switch	Setting for the device address
Other characteristics		
USB version	USB 2.0	
Control	via USB or RS232C	
Display	(8) Blue LEDs	connection on busbar L
	(8) Red LEDs	connection on busbar R
	(1) Blue LED	Marking for signal output line L
	(1) Red LED	Marking for signal output line R
Control interface	Virtual serial port via USB or RS232C	19200 baud 1 start bit 2 stop bits No handshake
Ambient temperature	0 – 40°C (32 °F – 104 °F)	
Weight w/o accessories	1.7kg (3.7 lb)	

8. Interface description

The command line interface uses simple ASCII strings. Recognized valid commands are acknowledged with the string "ok" if the command is a configuration command and the address is uniquely detected. For a read command, the corresponding data is sent. An unrecognized command is ignored.

All strings end with a CR (ASCII 13).

Command	Parameter	Response value	Comment
Configuration commands			
ISL	00 - 7F	ok	Switches input 0 to 127 to busbar L. All other inputs on L are switched off.
ISL	R		Switches all left inputs off. Affects all cascaded devices.
ISR	00 - 7F	ok	Switches input 0 to 127 to busbar LR All other inputs on R are switched off.
ISR	R		Switches all right inputs off. Affects all cascaded devices.
Read commands			
IGL		00 – 7F	Returns the input on busbar L. If no input is switched to busbar L, there is no response.
IGR		00 – 7F	Returns the input on busbar R. If no input is switched to busbar R, there is no response.
Special			
IGV	0 – F	String	Version of the firmware on the switch with the address specified.