



hear
TECHNOLOGIES®

switch back M8RX™



With intuitive design and robust capabilities, the Switch Back M8RX™ is actually two products in one. This gives the musician a choice to play live, record, or monitor their mix all in one single tool.

The M8RX is a personal interface to be used for live sound or recording, and also a multi-channel headphone monitoring system. While compact in size, the M8RX gives individuals options to use it in multiple ways, such as a mini recording studio setup or a simple communication system.

The research and design of the M8RX is what sets it apart. Our engineers created the sleek look and feel making it perfect for clipping to a belt, mounting on a mic stand, or sitting on a table. The M8RX features a total of eight channels of audio mixing – two channels with studio-quality microphone preamps, two channels of line-level inputs, and four Dante network audio inputs/outputs. The M8RX's two mic preamps have a distortion spec below 0.001% along with zero-latency analog mixing and monitoring of the four analog inputs. With Ethernet capability becoming standard in most pro audio gear today, the M8RX includes a total of four channels of Dante network audio inputs/outputs.

Along with the same high quality headphone amplifier as in the Hear Back PRO and OCTO systems, the M8RX has 5 watts of headphone power and can be connected to a computer via the Ethernet port using an external power injector. The M8RX utilizes PoE+ (Power-over-Ethernet+), which allows the unit to be powered over the same unshielded CAT6 cable used to transmit data.

System Standouts:

- Two ultra-low noise studio-quality discrete microphone preamplifiers
- Locally adjustable microphone gain, in selectable increments between 30 and 54 dB
- Local volume control of up to 8 channels of audio (4 local analog inputs and 4 Dante digital inputs)
- 1/8" Stereo Input (input 3/4)
- Ultra-low distortion of 0.001% THD+N (even with 60 dB of gain on the microphone preamp!)
- PoE+ power guarantees ground isolation between M8RX interfaces
- Standard unshielded CAT6 cabling delivers power and Dante digital audio to each M8RX
- Zero latency headphone monitoring of the local analog inputs
- All 4 local analog input channels are made available on the Dante network as sources
- Small enough to be clipped on your belt (with the included belt clip) or mount on a stand using the built-in standard camera-tripod mount (1/4"-20 thread)
- Can use stand-alone (without a Dante network connection) as a small microphone preamp, analog mixer, and headphone amplifier (great as a more-me system)

Features:

- 4x4 Dante I/O (4 Dante Inputs and 4 Dante Outputs)
- Easy access to all volume controls on face of unit
- Compact, concentric volume knobs allow volume control of local inputs using the tip, and Dante inputs using the rings
- Master volume control for headphones
- True 48-volt phantom power locally selectable on each microphone input
- Burr-Brown 24-bit Delta-Sigma ($\Delta\Sigma$) A/D converters
- Burr-Brown 24-bit enhanced multilevel delta-sigma ($\Delta\Sigma$) D/A conversion
- Dual-color signal and peak indicators on each input channel
- Gain, phantom power, and Dante status indicators tucked away on rear of unit
- Streamlined cable connections on rear of unit
- Combo XLR & 1/4" TRS balanced inputs on channels 1 & 2 for connecting microphones or instruments
- Balanced 1/4" inputs automatically have 18dB of padding over XLR inputs
- 1/8" unbalanced stereo input for auxiliary sources such as metronome, iPod, external microphone preamp, etc.
- 100 BaseT Ethernet
- Powered by PoE+
- Locally selectable LED color on top for easy color-coding and identification



MADE IN THE U.S.A.

The following are registered trademarks of Hear Technologies: Hear Technologies, Hear Back, and the "Jack" logo. All names and marks of other companies belong to those respective companies.

Technical Specifications

Inputs A & B (available on Dante network as channels 1&2)

Mic Input Configuration:	Mono, Balanced XLR
Mic Input Frequency Response:	10Hz - 120kHz +/-0.5dB (analog input to headphone output)
Mic Input THD+N:	0.001% @ 150mV input
Mic Input IMD:	0.004% @ 150mV input
Mic Input X-TALK:	-86dBu @ 150mV input
Mic Input Sensitivity:	-64dBu (gain at max), -30dBu (gain at min)
Line Input Frequency Response:	10 Hz - 120kHz +/-0.5dB (analog input to headphone output)
Line Input THD+N:	0.001% @ 1V input
Line Input IMD:	0.004% @ 1V input
Line Input X-TALK:	-91dBu @ 1V input
Line Input Sensitivity:	-13dBu (gain at max), +20dBu (gain at min)

Input C (available on Dante network as channels 3&4)

Input Configuration:	Stereo, Unbalanced 1/8" TRS
Input Frequency Response:	10Hz - 120kHz +/-0.5dB (analog input to headphone output)
Input THD+N:	0.005% @ 200mV input
Input IMD:	0.015% @ 200mV input
Input X-TALK:	-70dBu @ 200mV input
Input Sensitivity:	-10dBu (fixed gain)

Headphone Power (per channel)

Load Impedance:	THD less than 0.01%*
8 Ohms:	1.2W
16 Ohms:	1.6W
25 Ohms:	2.0W
32 Ohms:	1.8W
50 Ohms:	1.5W
100 Ohms:	1.1W
200 Ohms:	500mW
600 Ohms:	220mW
Inter Modulation Distortion:	Typically less than 0.02%

System Noise Performance

Noise, A-Weighted:	-97 dBu
Dynamic Range:	122 dB

Physical

Size:	5.5" H x 4.45" W x 1.625" D (13.97 cm H x 11.30 cm W x 4.13 cm D)
Unit Weight:	9.5 oz. (0.27 kg)
Mounting:	Standard camera tripod thread (1/4" 20 threads per inch), belt clip, or desk mounted

Power

Power Requirements:	PoE+ 36-52 VDC, 15 Watts max**
---------------------	--------------------------------

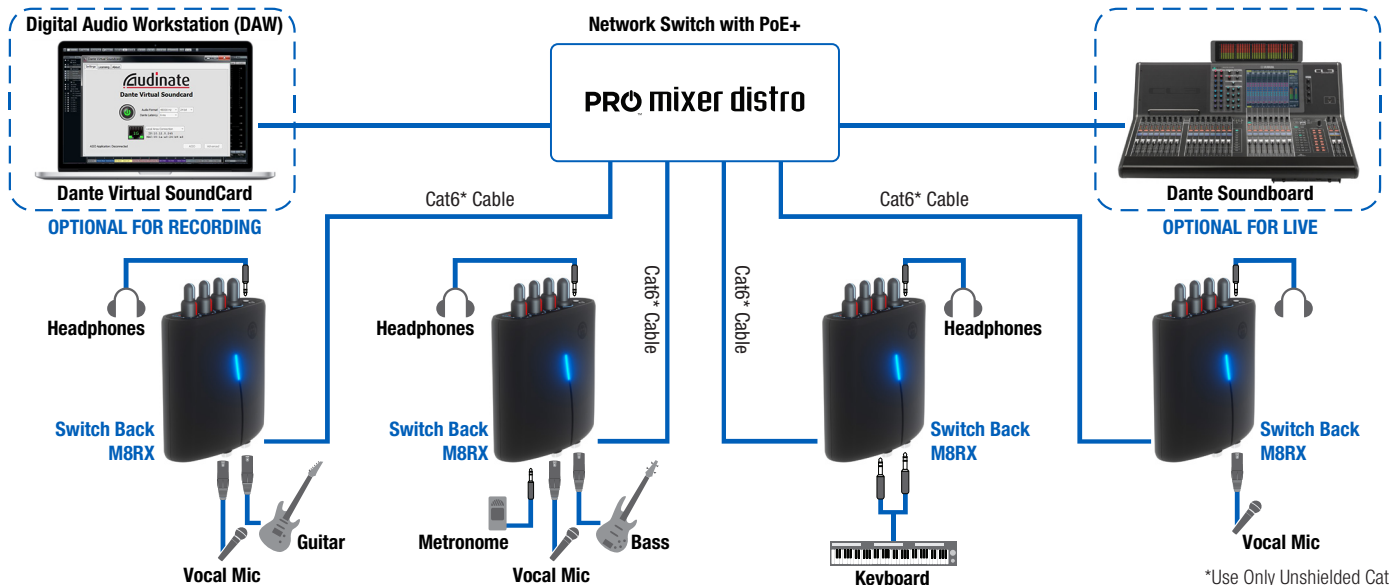
Cabling

Use only unshielded CAT6 cables for network connections.

*Note: 0 dBu = 0.775 Vrms. Specifications and features subject to change without notice.

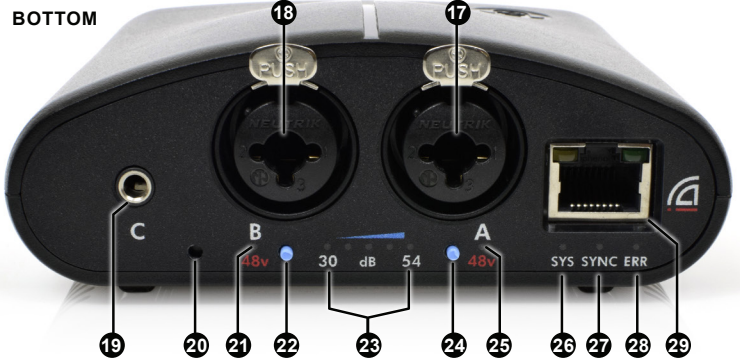
**Provided by Hear Technologies PRONET or equivalent network switch with PoE+ capability.

Example Hook-up



*Use Only Unshielded Cat6 Cables

Switch Back M8RX



- 1 - 1/8" Stereo Headphone Output
- 2 - Headphone Fault LED
- 3 - Master Volume
- 4 - Dante Input "A" Level
- 5 - Analog Input "A" Level
- 6 - Dante "A" Signal & Clip Status LED
- 7 - Analog "A" Signal & Clip Status LED
- 8 - Dante Input "B" Level
- 9 - Analog Input "B" Level
- 10 - Dante "B" Signal & Clip Status LED
- 11 - Analog "B" Signal & Clip Status LED
- 12 - Dante Input "C" Level (Stereo)
- 13 - Analog Input "C" Level
- 14 - Dante "C" Signal & Clip Status LED
- 15 - Analog Input "C" Signal & Clip Status LED
- 16 - User-changeable Multi-color LED (for identifying multiple M8RXs)
- 17 - Input "A" Balanced XLR or 1/4" Input
- 18 - Input "B" Balanced XLR or 1/4" Input
- 19 - Input "C" Unbalanced 1/8" Stereo Line Input
- 20 - Reset Switch
- 21 - Input "B" Phantom Power Indicator
- 22 - Input "B" Gain & Phantom Power Button
- 23 - Gain Indicator LEDs for Input "A" or "B"
- 24 - Input "A" Gain & Phantom Power Button
- 25 - Input "A" Phantom Power Indicator
- 26 - "SYS" Dante Status Indicator
- 27 - "SYNC" Dante Communication Indicator
- 28 - "ERR" Error Indicator
- 29 - Dante & PoE+ Power RJ45 for 100 BaseT Ethernet Connector (use unshielded cables) (REAR not shown) 1/4"-20 Thread Standard Camera-Tripod Mount