



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 hanging from a belt, mounting on a mic stand, or sitting on a table. The M8RX features a total of eight channels of audio mixing – two studio-quality microphone preamps, two channel line-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. The unit uses PoE power over the same Cat5e cable as the Ethernet. The M8RX is manufactured in the U.S. to ensure our customers get the quality they have come to expect from Hear Technologies.

System Standouts:

- Local control of up to 8 channels of audio (4 local analog inputs and 4 Dante digital inputs)
- All 4 local analog input channels are made available on the Dante network as sources
- Two ultra-low-noise studio-quality discrete microphone preamplifiers
- Remotely/Locally adjustable microphone gain selectable in 6 dB increments between 30 and 60 dB of gain
- Ultra-low distortion of 0.001% THD+N (even with 60 dB of gain on the microphone preamp!)
- Zero latency headphone monitoring of the local analog inputs
- Remotely selectable LED color on top for easy color-coding and identification
- Optional Hear Technologies software for discovering M8RX interfaces on the network, controlling gain, phantom power, and LED color
- Standard CAT5e, CAT6 cabling delivers power and Dante digital audio to each M8RX interface
- Small enough to be belt clipped or mount on a stand or clip with ¼"-20 thread standard camera-tripod mount
- Use stand-alone as a small microphone preamp, analog mixer, and headphone amplifier without a Dante network connection (great as a "more me" system)

Features:

- 4x4 Dante (4 Dante Inputs and 4 Dante Outputs)
- Master volume control for headphones
- Easy access to all volume controls on face of unit
- Dual-color signal and peak indicators on each input channel
- Concentric volume control on each channel reduces space and simplifies user interface by placing local inputs on the tips and Dante inputs on the rings of each knob
- True 48-volt phantom power remotely/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
- 1/8" unbalanced stereo input for auxiliary sources such as metronome, iPod, external microphone preamp, etc.
- Balanced 1/4" inputs automatically have 18dB of padding over XLR inputs
- Combo XLR & 1/4" TRS balanced inputs on channels 1 & 2 for connecting microphones or instruments
- 100/1000 BaseT Ethernet
- Powered by Power over Ethernet (PoE) guarantees ground isolation between M8RX interfaces Zero latency headphone monitoring of the local analog inputs
- Gain, phantom power, and Dante status indicators tucked away on rear of unit
- Streamlined cable connections on rear of unit



MADE IN THE U.S.A.

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PRELIMINARY DATA

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

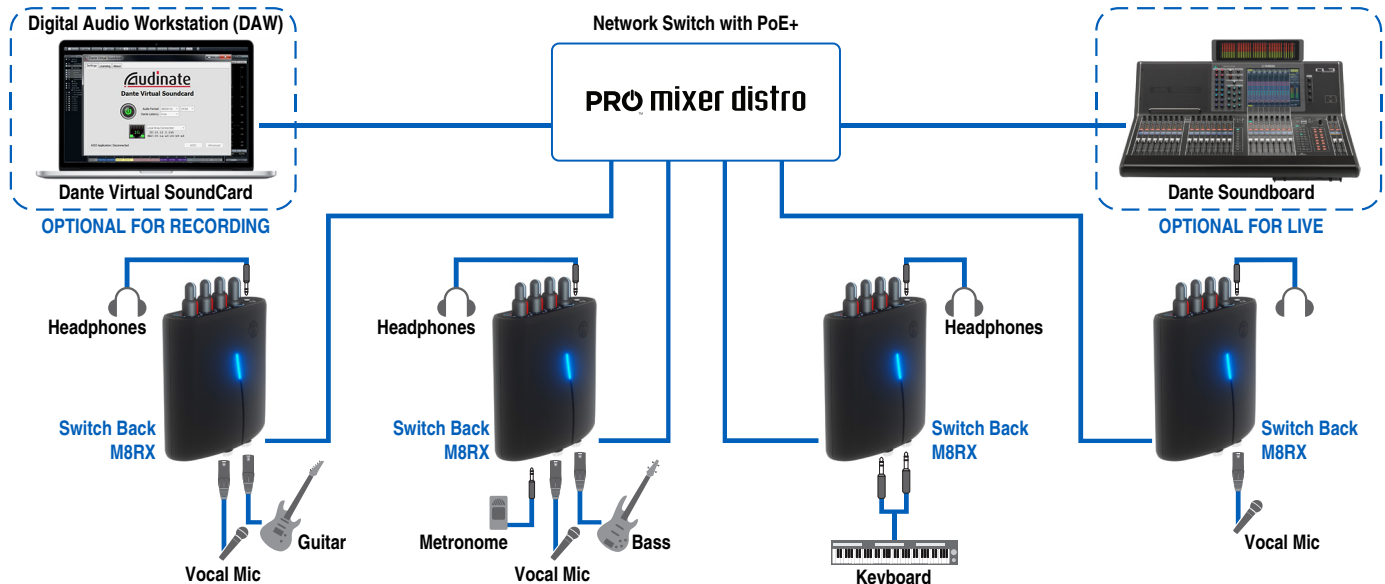
Size:	5.5" H x 4.45" W x 1.625" D (13.97 cm H x 11.30 cm W x 4.13 cm D)
Unit Weight:	9.5 oz. (0.27 kg)
Mounting:	Standard camera tripod thread (1/4" 20 threads per inch), belt clip, or desk mounted

Power

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



Switch Back M8RX

TOP



BOTTOM



- 1 - 1/8" Stereo Headphone Output
- 2 - Master Volume
- 3 - Input "A" Level
- 4 - Dante Input "A" Level
- 5 - Input "B" Level
- 6 - Dante Input "B" Level
- 7 - Input "C" Level
- 8 - Dante Input "C" Level (Dante Stereo Channels 3 & 4)
- 9 - Dante Signal & Clip Status LED
- 10 - Input Signal & Clip Status LED
- 11 - User-changeable Multi-color LED (for identifying multiple M8RXs)
- 12 - Input "A" Balanced XLR or 1/4" Input
- 13 - Input "B" Balanced XLR or 1/4" Input
- 14 - Input "C" Unbalanced 1/8" Stereo Line Input
- 15 - Reset Button
- 16 - Input "B" Phantom Power Indicator
- 17 - Input "B" Gain & Phantom Power Button
- 18 - Gain Indicator LEDs for Input "A" or "B"
- 19 - Input "A" Gain & Phantom Power Button
- 20 - Input "A" Phantom Power Indicator
- 21 - "SYS" Dante Status Indicator
- 22 - "SYNC" Dante Communication Indicator
- 23 - "ERR" Error Indicator
- 24 - Dante & PoE Power 100/1000 BaseT Ethernet Connector



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