

# USB MATCHBOX™

## USB<>XLR ULTRA-DEFINITION STEREO CODEC

### Product Description

The **USB Matchbox** is a professional USB-to-XLR bi-directional stereo audio codec. It provides unparalleled audio performance with the ease of USB connectivity in any application where digital audio from a computer needs to interface with a professional analog audio system. The USB Matchbox is USB powered, and solves the myriad of problems caused by using computer sound cards in broadcast and professional audio environments.

### The Sound Card Problem

Using a PC sound card to interface with a professional audio system usually leads to numerous problems. The inputs and outputs are often at the wrong levels. The unbalanced interface creates ground loops that cause hum and buzz. The "EMI hurricane" within the PC case creates even more noise, and the sound card audio quality is usually sub-par, (despite exaggerated claims) with pedestrian design and poor component quality. Although these shortcomings may be accepted by a non-technical user, they have no place in a broadcast station or professional audio installation.

### The USB Solution

Henry Engineering's USB Matchbox has been designed "from the ground up" as a true professional product that solves all of these problems. It delivers impeccable audio quality,

XLR connectivity, and the convenience of a simple USB connection to the computer.

The heart of the USB Matchbox is Burr Brown's Delta Sigma 8X Oversampled codec with SpAct audio clock recovery architecture. The codec's superb performance is further enhanced with Henry Engineering's proprietary L/C pre-filtering and edge-of-the-art analog circuitry painstakingly designed by Bill Sacks, founder of Straight Wire Audio. This carefully tuned design eliminates the transient intermodulation products caused by inadequate reconstruction filters found in even high-end sound cards. Careful attention to component selection and circuit board layout further enhance the design to yield true Audiophile performance: ultra smooth, open and transparent "un-digital" audio with rock-solid bass and crystal-clear highs.

In addition, the unit's internal switch-mode power system virtually eliminates ground loops through the PC, and allows operation at true professional levels with liberal headroom. The net result is obvious with a simple listening test: The USB Matchbox will sonically outperform any soundcard and even surpass the quality of many 24 bit systems. MS-Windows and Linux OS are supported; no special driver or software is needed. The USB Matchbox will operate with virtually any audio editing, recording, or broadcast automation software at sample rates up to 48 kHz and up to 16 bit resolution.



Front



Back

### Technical Specifications

<b>XLR Analog Inputs X2</b>	Balanced, 30K input imped. -6 to +8 dBu nom. input level
<b>RCA Analog Inputs X2</b>	Unbal, 10K input imped. -10 dBv nom. input level
<b>XLR Analog Output X2</b>	Balanced, 600 ohm load or higher +4 dBu nom, +26 dBu max. level
<b>SPKR Output</b>	-10 dBv, 3.5mm stereo jack
<b>MUTE</b>	GPI closure to mute SPKR
<b>USB Compliance</b>	USB 1.1 or higher
<b>Sample Rates</b>	32, 44.1, 48 kHz
<b>Bit Depth</b>	16-Bit Delta-Sigma ADC and DAC
<b>Power</b>	USB powered
<b>Physical</b>	5.7" w x 1.7"h x 6.0"d 3 lbs

### For The Professional

The USB Matchbox provides the quality that professional users require. Its dual-PLL asynchronous design permits simultaneous record and playback. Front panel controls allow precise adjustment of input Level and L/R Balance trim. Output levels are calibrated with recessed trimmers. Rear panel connections include XLRs for balanced analog I/O, Auxiliary unbalanced line inputs, and outputs for amplified speakers. The Speaker output can be muted with an external contact closure via the Mute jack. The steel chassis provides effective RF and EMI shielding. All ICs that connect to the "outside world" are mounted in sockets.

The USB Matchbox is 1/3 rack width, and can be rack-mounted using the optional rack-mount shelf, or cabinet or wall mounted using optional cabinet/wall mounting brackets. Also available: **USB Match Plus**: Identical to the USB Matchbox, but with the addition of peak-reading level meters and a high-performance headphone amplifier.



Technical specifications subject to change without notification.



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