

# Millennia Music & Media Systems

# M-2B

Transformerless Class A Vacuum Tube Stereo Microphone Preamplifier

#### The World's Most Elegant Tube Mic Preamplifier

- Musical, involving, euphonic
- High speed transformerless, pure Class A, 350 volt triode design
- Differential topology: no attenuator "pads" required
- Effortless dynamics, vividly realistic ambience
- >35 dBu output headroom
- High resolution gain control
- Precision potentiometers, ultra-premium components
- Built for critical professional applications
- Gold audio connectors, tube sockets, and relays
- 3/8" thick radius extruded aluminum face plate
- Durable mirror-gloss anodized finish
- Mil spec 16 gauge cold-rolled steel chassis
- Ultra-clean toroid power supply: internal sub-chassis
- Hand machined aluminum knobs, illuminated IT&T push buttons
- Richly musical vintage vacuum tubes available
- Mogami Neglex OFC audio wiring
- Silver Teflon power wiring

#### Options

BK (DPA) +130V mic inputs

• DC inputs for ideal performance with dynamic and ribbon microphones

### Not Quite What You Need?

- HV-316 Remote Controlled Multi-Channel Preamplifier
- HV-3C Stereo Mic Preamplifier
- HV-3C24 Stereo Mic Pre & 24/192 POWR ADC
- HV-3D Four or Eight Channel Mic Preamplifier

## Digital Needs Warmth, Demands Total Clarity

Microphone preamplifiers magnify the input as much as 1000:1. There's no "Undo" after this point. Coloration or distortion become part of the signal. Lost information can never be recovered. Data compression algorithms (MPG, AC3, DTS etc.) are unable to distinguish signal from noise, so preserving the clarity and integrity of the signal through the recording and production process is critical to communicating the artist's intention and individuality. The M-2b's unique design avoids circuit-induced artifacts, amplifying the original sonic information with an absolute minimum of alteration.

# The Essential Nature of Triode Musicality

No matter how subtle or attractive, a colored sonic "signature" restricts options at every link in the chain. The M-2b's transformerless design reveals the open, transparent sound of hand-selected tubes and puts you on the path to creative exploration. Every detail of the original performance is delivered, along with a heightened sense of ambience and euphonic space, a subtle and musical sweetness, and a particular quality of intimacy.

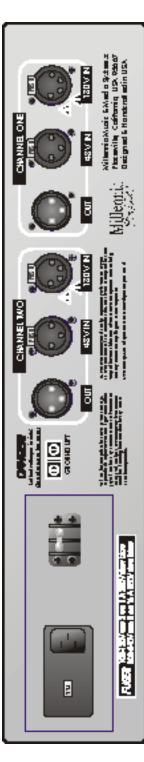
#### Experiment, Experience, Excellence

The M-2b was developed to be accurate enough for the world's finest acoustic recordings. Textbook theory is an incomplete guide, and test instrument readings don't reliably measure the quality of the listening experience. We took a rigorously empirical approach. exploring many design approaches by attempting to perfect each one. Experimental designs were evaluated on the lab bench and in our own production facility, where we could compare recordings directly to live performances. We proved to ourselves that there's no such thing as a straight wire with gain. But the M-2b's differential topology, ultrahigh headroom, electrically correct transformerless coupling, high voltage rails and unfailing attention

to power and ground integrity have brought triode vacuum tubes extremely close to our goal of absolute accuracy and uncompromised sonic realism. Whatever the venue or musical style, the M-2b delivers the authentic sound of vocalists, acoustic instruments, drums, triple guitar stacks... delighting artists, engineers, producers and listeners around the world.

## You Can Pay More, You Can't Spend Less

Initial purchase price is never a design target at Millennia Media. We strive to maximize return on investment and minimize total cost. The M-2b is the mic pre of choice at the highest levels of the profession: it will remain a valuable and trusted tool no matter how far your sonic explorations take you. This is a tool you can build a career around. Acquiring an M-2b is a step off the upgrade treadmill: a step that will ultimately save you much more than your initial investment.



#### **M-2bSpecifications**

Minimum Gain	14 dB
Maximum Gain	
(3 ranges with continuous trim)	50 dB
Frequency Response	
+0 / -3 dB	4 Hz to 130 kHz
Noise	
50 dB Gain, 10 Hz - 30 kHz, 150 ohm Source	-116 dB EIN
Total Harmonic Distortion + Noise	
30 dB Gain, 10 Hz - 20 kHz Bandwidth, 0 dBu Out	<.02%
Intermodulation Distortion	
(50 Hz & 7 kHz) 35 dB Gain, +27 dBu Out	< .0009%
Phase Response	
35 dB Gain, 20 Hz - 20 kHz, +26 dBu Out	< 10 degrees deviation
Phase Response, Stereo Deviation	
35 dB Gain, 20 Hz - 40 kHz, +27 dBu Out	< 1 degree
Common Mode Rejection Ratio	
30 dB Gain, 1 kHz, 100 mV C.M.	> 60 dB
Slew Rate	
35 dB Gain, +27 dBu Out	> 20 volts per microsecond
Maximum Input Level	
20 Hz - 40 kHz, 14 dB Gain	+20 dBu (no attenuator pads required)
Maximum Output Level	
20 Hz - 40 kHz, 10 kilohm Min. Load	> +35 dBu
Interchannel Crosstalk	
30 dB Gain, 1 kHz, 0 dBu Both Outputs	< 70 dB
Phantom Input Impedance	3.800 ohms
Output Impedance	120 ohms
DPA (B&K) Mic Powering	+130 V dc, max, (non-phantom)
Phantom Powering	+48 V dc, +/- 2 V dc
Power Consumption	50 watts maximum
Power Requirements	Selectable: 100-120, 200-240 V ac, 50/60 Hz
Dimensions/Shipping Weight	19"W x 3.5" H x 12" D, 26 lbs.



Millennia Music & Media Systems Diamond Springs California USA T 530-647-0750 http://www.mil-media.com sales@mil-media.com Hand made in the USA. One year limited warranty. Specificationsanddeliverysubjectto changewithoutroite.Trademarksare property of their respective holders. ©2022 Millennia Media, APC The sound is great -- sweet, refined, full of dynamics - fabulous on grand piano. *Tony Faulkner*, *Greenroom Productions, UK* owner of HV-3D and M-2b preamplifiers

Guitar, violin, flutes and other instruments in stereo array with Schoeps sound so pure, sweet and spacy. I especially love the tube preamp (M-2b) with the transformer engaged sometimes. Really a happy day and hopefully many happy days yet to come... It was preceded by two months of communication with Millennia and John La Grou - and he was so kind to me, answering all possible questions and being extremely helpful. *ISedlacek [in the George Massenburg Forum,* 

6 Oct 2003]

This is an outstanding mic preamp. I've never heard our mics sound this clean on piano. We've been using our [46 channels of] Millennia preamps on everything...

Jack Renner, President, Telarc Records International

A couple of experienced recording engineers here in DC thought my combination of Scheps m222b tube mic and M-2b preamp was the greatest front end they had ever heard.

Steve Cormier

"The M-2b is an audio masterpiece. Tube technology at it's finest- which in my book means audio technology at it's finest! Our first choice for vocals and piano. If we owned more channels, the M-2b would probably be first-choice on everything until we ran out of them! Like everything from John LaGrou's workbench, the M-2b is built like a fine watch. A pleasure to hear, see, and touch." *Randy Ezratty, Effanel Music, Inc.* 

Still mesmerized each time we listen to this thing - the more we do with it, the more harmonics jump outta this thing! And it isn't even broken IN yet! It's just absolute insanity. Compliments to the chef. *Ira Segall*