

# electro-harmonix

## 12AY7 MIC PRE

### High Headroom Class 'A' Dual Vacuum Tube Mic Preamp

Congratulations on your acquisition of the Electro-Harmonix **12AY7 Mic Pre**. This high-voltage, pure class 'A' tube path has an 80kHz bandwidth, making it ideal for use with your favorite 96-192kHz A/D converter, high-end analog or digital console, or recording system. This dedicated microphone preamplifier has a single XLR input with an infinitely variable attenuator offering up to 50dB of gain.

**WARNING** Your unit comes equipped with a 12 Volt/1 Amp AC external power adapter. **Use only the power adapter supplied**, and make sure it is appropriate to your location (USA, Europe, Japan, Australia). Use of the wrong adapter can cause damage to the unit or to you, and will void the warranty.

Two premium Electro-Harmonix vacuum tubes, a 12AU7 and a 12AY7, operate at 200V, providing incredibly low distortion and high dynamic range. A discreet, matched, FET-based current balancing circuit allows for a low-cost, transformer-less design, offering more than 80dB of CMRR. The 12AY7 Mic Pre is small, portable and lightweight, allowing studios to place it near the mic and run it line-level to recorders and monitor mixers. Separate XLR and ¼" balanced outputs can be used to split the signal for recording and monitoring in live performance applications.

A host of standard features allow the 12AY7 to interface with most microphones and line-level input. Engaging the 48-volt phantom supply produces a "pop"-free ramp up. The 48 volt phantom supply supplies 10mA. Some modern direct-coupled condenser mics require more than this... you will need to test for best results. Nearly all older condenser mics and all dynamic mics will be easily employed. The 12AY7's Low-Cut filter is useful for controlling proximity effect and reducing rumble from wind or vibration. Also included is a Phase Reverse switch, which allows alignment at 0 or 180 degrees. Placement of multiple mics on common sources can affect overall sound. Toggling this switch inverts the phase of 12AY7.

**POWER LED** – This blue LED should glow brightly when the correct 12-volt /1 Amp AC power is applied, signaling that all operational voltages are satisfactory.

**INPUT GAIN/OVERLOAD LED** – The input gain knob controls the pad before the first tube gain stage, providing a range of 50dB. This range will work for dynamic, condenser and ribbon microphone types in most applications. We have provided enough gain to allow the large orange overload indicator to glow regularly if desired. This overload characteristic is musical in nature, with soft, warm, natural tube clipping that is great for blues harmonica.

The OVERLOAD LED will begin to light at 0dBm and light solid at +4dBm or about +6dBu and +10dBu respectively

**PHANTOM PWR/LED** – Engages/disengages +48Volts on pin 2 and 3 of the input XLR. Turn on/Turn off transients, which could harm mics or monitor speakers, are eliminated by a slow ramp on/off power circuit. The Phantom LED should glow bright green when the phantom is active. Some condenser mics require more than the 10mA available for optimum use.

**LOW CUT** – Engages a simple, single-pole high-pass filter at 80Hz. This can be used to change the character of the mic, modify proximity effect or reduce rumble.

**PHASE REV**– This switch enables the user to invert their phase at the microphone input. Phase problems can occur when multiple similar mics are used in close proximity of the same sound source. Changing the phase typically can be heard as going between a thick or thin-sounding recording. This is dependant on the phase of the additional sound sources. This feature is also useful for accommodating XLR cables that have pin 2 and pin 3 swapped.

**¼" OUTPUT LEVEL** – This separate, buffered output with a dedicated level control is "balanced out," which can provide +18dBu. Shorting the ring to the sleeve allows for use of single-ended unbalance cables in some equipment. Test for best results.