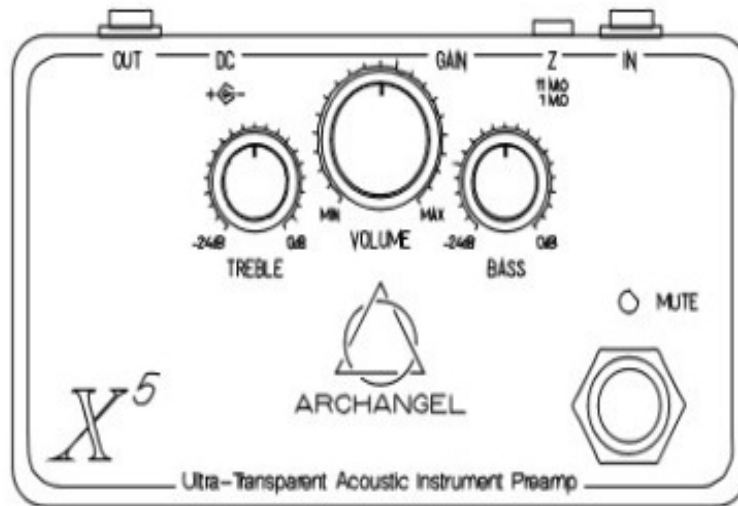


X⁵



Users Manual

The X⁵ has several new features and settings
Making it among the most transparent advanced acoustic processors available.

*Please take a few moments to read through this guide before the first use
to get the highest level of performance possible, customized for your signature tone and playing style.*



Warnings!

- Always keep, read, and follow these instructions.
- Do not use this device near water.
- Clean only with damp or dry cloth.
- Protect cords from being walked on or pinched particularly at plugs, and the point where they exit from the device.
- Only use attachments/accessories specified by the manufacturer.
- Unplug this device during lightning storms, and remove batteries when unused for long periods of time.
- Refer all servicing to factory authorized service personnel.
- The device shall not be exposed to dripping or splashing and that no objects filled with liquids, shall be placed on or near the device.
- Prolonged listening at high volume levels may cause irreparable hearing loss and/or damage. Always be sure to practice “safe listening.”



WARNING: To reduce the risk of fire or electric shock do not expose this device to rain or moisture.

The X5 has a 1/4" high impedance unbalanced input for instruments. The X5 can accept input from piezo pickups, magnetic pickups, even active electronics like the Sunrise™ active magnetics, or the Taylor™ Expression System™, It even works with 18V active bass guitar preamps and iOS and mobile devices.

The gain and impedance may need setting to match your input source, which is detailed later.

The X5 really shines when used with multiple SBT (soundboard transducers) like Elevation™ premium transducer sets or JJB™ Prestige 330s. Using those transducers with the X5 reveals tone almost exactly like a large diaphragm condenser mic, without the feedback that plagues most piezo systems.

The input jack when unplugged, disconnects the battery and DC jack from the power supply to extend battery life.

Powering Up

The X5 uses either the included Duracell 9v battery or wall adapter power through the DC jack. The battery is accessed by opening the battery door on the enclosure's bottom. Battery life is estimated by Duracell to be 172 hours or longer. This varies with your gain and eq settings. If you consider your performance to be mission critical however, install fresh batteries whenever you change your strings.

The X5 can easily be powered with standard 2.1mm regulated 9v DC adapters with the center pin having a negative polarity. The X5 only draws 3.38mA of current at the maximum settings.

The X5 can also be powered with 12v or 18v for very high headroom.

Always disconnect and remove the internal battery before powering with any voltage higher than 9v

Gain Control

The gain control is on the back panel beside the input jack. The gain control is a tiny brass adjustment screw. Using the included jewelers screwdriver, turn the screw clockwise to increase the gain and counter-clockwise to reduce it. At the lowest setting the gain is 0dB for unity gain. At the highest setting the gain is 21dB for 11x amplification.

The gain control is centered when shipped. It must be reduced for single piezo elements mounted directly to the soundboard (like found in many ukeleles and mandolins), and for active electronics or heavy percussive playing styles. It may need to be increased for small disc piezos or for thin film piezo types.

To test the gain settings for acoustic instruments with piezo pickups, tap the bridge or soundboard with your palm using a fair amount of force. For electric instruments and magnetic pickups, play the loudest passages you will process with the X5. Decrease the gain if there is popping or clipping coming from your X5. Ipods, keyboards, and similar line inputs may need their master volume level reduced before processing the signal with the X5.

Subtractive Eq

The X5 has a two bands of subtractive shelving equalization. Subtractive means that they work to cut frequencies only, and will not boost them. This makes for a dead silent eq without hiss or phase smear.

Both bands give between -24dB an 0dB of frequency reduction. The normal position for the knobs for no effect is fully clockwise.

The Bass filter is tuned to 125Hz to reduce low frequency feedback and handling noise. It also allows the instrument to sit in the mix beautifully with bass and drums without needing excessive equalization from the audio mixer.

The Treble filter is tuned to 5kHz to reduce high frequencies including string squeaking

Mod Switches

The X5 continues one of our most popular features from previous generations. Mod Switches allow you to re-wire the circuit and change and personalize several essential design parameters to suit your personal playing style and tone.

There is one Mod Switch for the X5 which is located on the rear panel.

The Z switch selects the input impedance between 11 Meg Ω when the switch is out or 1 Meg Ω when th switch is pressed in. The input impedance makes very little difference in tone. 1 Meg Ω is the recommended setting for most applications.

Mute

Silent tuning is enabled with the mute switch. To switch instruments, unplug the instrument end of the cable while muted to avoid powering down the X5 from unplugging from the input jack.

The X5 lights up with a red LED to indicate muted status. The mute switch is a pro quality 3PDT heavy duty switch. It may be very stiff until it is broken in. Press the switch very hard to toggle it the first few times.

Output

The output is a very low noise unbalanced line out. It also has it's own dedicated volume control. The X5 output is designed for ultra-high quality recording and live performance. The output is a low impedance line out at $4.7k\Omega$. It is still a high enough impedance to drive most pedals and processors.

Features and specifications in this manual are subject to change without notice.

Current product information is available online at:

www.archangelelectronics.com