



elixir

API™ 500 Series Compatible Preamplifier Module

Users Manual

Thank you for choosing the Buzz Audio Elixir preamplifier module. Please take the time to read this manual so that you are familiar with the operation of the unit.

To gain our Extended Warranty, please return the enclosed Registration Card or register your purchase online at www.buzzaudio.com

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1] Compatibility and Power

The Elixir preamplifier module is designed to be installed into an API™ 500 Series compatible rack and cannot function stand alone, requiring the power source supplied by the rack system.

It should be noted that the Buzz Audio Elixir module consumes more power supply current than most other 500 series modules available due to the True Class A amplifiers used in the design. For this reason, there may be limitations on how many Elixir modules can be installed into some rack systems currently available.

The current consumption of the Elixir is rated at 150 milliamperes at +/-15 volts DC. If 10 modules are installed into a rack, then a total of 1.5 amperes will be required from the rack power supply. Please check with the rack manufacturer that the design can meet this rating. 10 Elixirs can safely be fitted to the API™ 500VPR rack.

If you wish to use the Elixir preamp with condenser microphones (or any device requiring +48V phantom power) then the chosen rack power supply will need the 48V phantom power source fitted.

For more information on the API™ 500 Series racks, visit the API™ website at www.apiaudio.com.

2] Installation

After unpacking your Elixir module, please check for any visible damage that may have occurred during transit. If there is any problem, please contact your dealer immediately for advice on what to do.

Installation into the 500 Series rack is relatively straight forward. Ensure the rack is completely powered down before attempting installation to prevent damage to the module.

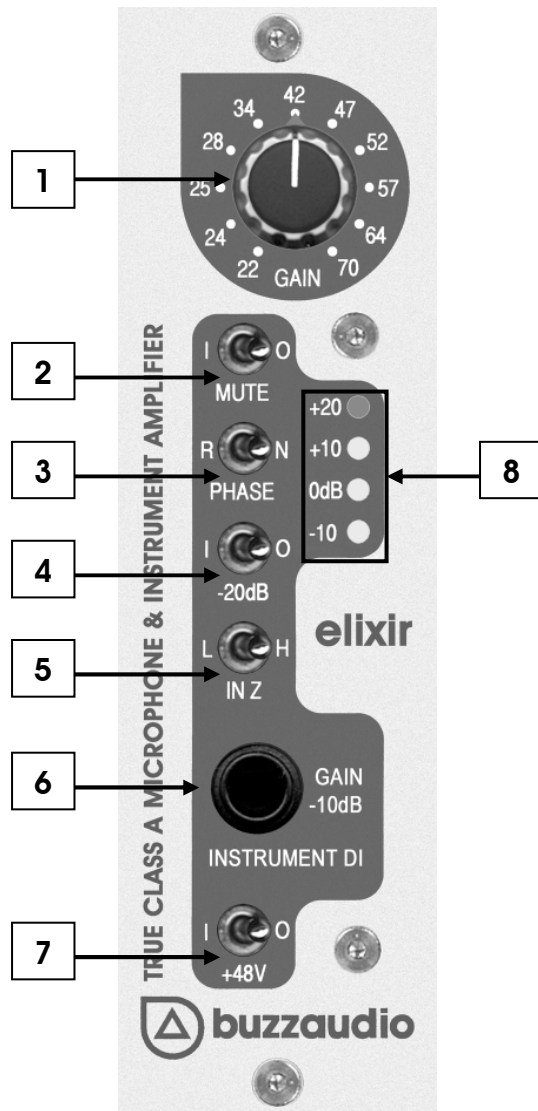
Choose the position in the rack to which you will install the module and slide it in so that the gold plated edge connector of the module aligns with the matching connector in the rack. A gentle push and the module should slide home into the rack connector.

Please avoid touching the gold plated edge connector of the module to prevent sweat from tarnishing the gold plate and thereby avoiding any connection reliability problems in the future.

Attach the Elixir front panel to the front of the rack with screws supplied by your rack manufacturer. This is important for mechanical rigidity. Do not over tighten these screws to avoid stripping out the threads.

Apply power, test that everything is working OK, and most importantly, enjoy!

3] Controls and Indicators



Controls and Indicators continued...

[1] GAIN This 41 position rotary control varies the amplification applied to the microphone input and instrument input. The markings around this control indicate the amount of gain applied in decibels. Note that when using the instrument input, the actual gain applied is 10dB less than indicated.

[2] MUTE This switch allows you to shut down the output of the Elixir module which is very handy when changing inputs, moving microphones around the studio etc.. The output is muted in the **I** (in) position and un-muted in the **O** (out) position.

[3] PHASE This switch reverses the polarity of the output signal relative to the input. In the **N** (normal) position, the output is in phase with the input. In the **R** (reverse) position, the output will be 180 degrees out of phase or inverted. It works with both microphone and instrument inputs. Please see note below.

[4] -20dB This switch reduces the gain of the preamplifier by 20 decibels by applying attenuation before the first amplifier stage. This can be useful when you cannot turn down the **GAIN** control enough when recording loud sources. It works with both microphone and instrument inputs. Please see note below.

[5] IN Z The letter "Z" is the symbol used to denote "impedance" and on the Elixir the **IN Z** switch changes

Controls and Indicators continued...

the impedance seen by the source at the input of the preamp. The microphone input impedance is 4k ohms in the **H** (high) position and 1k2 ohms in **L** (low) position. The correct position of this switch is purely subjective, with some microphones (such as ribbon types) being more susceptible to this change than others.

The instrument input is also affected by this switch with an input impedance of 1Meg ohms in **H** position and 20k ohms in **L** position. The **H** position will be more suitable for bass and guitar pickups introducing less loading on these devices.

[6] INSTRUMENT INPUT A standard 1/4" jack socket allows you to connect pickup and keyboard outputs for amplification. This socket will accept both balanced (TRS) and unbalanced signals. Inserting a jack into the socket automatically selects this input and the microphone input is disconnected.

[7] +48V This switch will apply +48 volt DC phantom power to the microphone input when switched to the **I** (in) position. Power is removed in the **O** (out) position. There can be loud splats generated when using this switch so use the **MUTE** switch to prevent these destroying your monitors (not to mention your ears!) Please also see note below.

[8] LED Meter Output level of the Elixir is displayed by this peak reading meter with indication at -10, 0, +10 and +20 decibel points. The Elixir module is capable of delivering a hefty +34dBu of output signal, so even with the +20dB LED flashing, it still has plenty of headroom. However, the device following the Elixir (DAW, recorder, or console) may not have this headroom available and may be close to clipping at +20dB level.

4] Important Note on Switching

When operating the **PHASE** and **PAD** switches, a low level click may be heard. As the **GAIN** is increased, so will the volume of these clicks and using the **MUTE** switch before operating these switches at very high gains is suggested.

Also, for a 30-40 second period after the **+48V** power has been switched both on and off, these clicks will be **LOUD**. This is due to the time taken for the input decoupling circuit to settle from the large transients the 48V introduces on the microphone input, and the residual DC to dissipate.

Now, we could have added extra input coupling capacitors to eliminate the clicks, but it is the view of the Elixir designer that these components would degrade the sound quality of the preamplifier and this small inconvenience to the user is well worth the sonic benefits of them not being there!

5] Specifications

Min Gain Mic = +22dB (-2dB with pad in)

Max Gain Mic = +70dB

Min Gain Instrument = +12dB (-3dB with pad in)

Max Gain Instrument = +60dB

Maximum Output Level = +34dBu into 3k ohm load.

Frequency Response

Mic = 10Hz to 300kHz @ 20dB gain (-3dB).

Instrument = 10Hz to 120kHz @ 20dB gain (-3dB).

Total Harmonic Distortion

(measured at -20dBu input, gain adjusted for +10dBu output level)

Mic = 0.15% @ 100Hz, 0.01% @ 1kHz, 0.005% @ 10kHz

Instrument = 0.15% @ 100Hz, 0.015% @ 1kHz, 0.015% @ 10kHz

Noise

EIN Mic = -132.5dB A wtg, 150ohm source Z.

Signal to Noise Ratio Mic = -74dB A wtg, input shorted.

Signal to Noise Ratio Instrument = -76dB A wtg, input shorted.

CMNR Mic = -78dB @ 100Hz, -100dB @ 1kHz, -100dB @ 10kHz.

Input Impedance Mic = 4k ohms/1k2 ohms switchable.

Input Impedance Instrument = 1MEG ohms/20k ohms switchable.

Size = (1.5"Wx5.25"H). Fits 1 space in API™ 500VPR Series rack format

Power requirements = 150mA +/- 15-18 volts DC, and +48 volts DC phantom power, as supplied by rack power supply.

Specifications are typical of a production unit and are subject to change without notice because we might be able to make it slightly better. 0dBu reference = 0.775 volts RMS.

6] Warranty and Service

We are confident that you will receive many years of trouble free operation from your unit. If however you experience any technical problem with your Elixir, contact your dealer or Buzz Audio for recommendations on what to do.

For on line support visit our web site;
www.buzzaudio.com and click on Users Area

Buzz Audio, 42b Hania St, PO Box 6677, Te Aro,
Wellington, New Zealand.

Voice/Fax 64+4+385-2478.

Email; support@buzzaudio.co.nz

•Disclaimer

Buzz Audio is not liable for any damage to microphones, amplifiers, consoles, speakers or any other equipment and/or electric shock to humans that is caused by negligence or improper installation and/or use of the Elixir preamplifier module.

•Standard Product Warranty

Buzz Audio guarantees the Elixir to be free of defective materials and/or workmanship for a period of 1 year (12 months) from the date of sale, and will replace

Warranty and Service continued...

defective parts and repair malfunctioning products under this warranty when the defect occurs under normal installation and use – provided the unit is returned to our factory (or duly authorised service centre) via prepaid transportation with a copy of the proof of purchase, ie, sales receipt. This warranty provides that examination of the returned product must indicate, in our judgement, a manufacturing defect. This warranty does not extend to any product that has been subjected to misuse, neglect, accident, improper installation, or where the date code has been removed or defaced. The standard warranty is NOT transferable.

•Product Warranty Extension

The above Warranty may be extended to a period of 2 years (24 months) from date of sale provided the enclosed Warranty Registration card is completed and returned to the office of Buzz Audio within 4 weeks (28 days) from purchase date. Alternatively, you may Register your purchase on-line at our web-site www.buzzaudio.com. The Extended Warranty is transferable to the new owner if you on sell the unit during the warranty period.

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PO BOX 6677, TE ARO. WELLINGTON, NEW ZEALAND.
VOICE/FAX 64+4+385-2478.

www.buzzaudio.com email management@buzzaudio.co.nz