

RICHTER ELECTRONIC ENGINEERING

high-end quality electronics manufactured in Germany
by Dipl. Ing. Andreas Richter

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The active Richter BassXX-electronics are built on a modular board system that can be adapted to your own wishes. Each board of the BassXX-base elements (Bass&Treble) has screw terminals and connectors. No soldering required! All parts and cables are completely shielded - this means no additional shielding of your instrument control cavity is required.

This folder shows some BassXX-illustrations and wiring instructions for Richter EE units:

- **BassXX 2BP**
- **BassXX 3BP**
- **BassXX 3BPP**
- **BassXX 2BP with blend pot and passive tone blend**
- **PPX**
- **MX 2**
- **JB passive**

Thank you for purchasing this Richter Electronics Engineering product.

After manufacture each unit undergoes a throughout test and inspection. This ensures each unit passes strictly quality standards. Serial number is carried out for traceability purposes.

Installation of the preamp will require some basic soldering skills. Instead of not being difficult, professional installation is recommended.

NOTE: Excessive heat and incorrect soldering equipment usage or selection may damage the electronics.

Richter EE will be not responsible for damages to the instrument, incurred as a result of improber installation!

RICHTER ELECTRONIC ENGINEERING

RICHTER BassXX Preamp for bass and guitar

Low-Noise Studio Quality, Sophisticated Sound, Battery Power Supervision Onboard, Rugged and Shielded

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The BassXX Preamp is a filter-based pre-amp which provides very flexible parametric EQ control with sweepable mids. Its outstanding sound performance is achieved through careful circuit design with attention to detail and selection of finest components available. It has an extremely low noise floor and a tube-like dynamic response. The warm and smooth sound has no discernable hiss even at extreme high frequency boosting.

Because the input impedance is higher than most other bass and guitar preamps, passive pickups will retain their natural frequency response and tonal character, as well as piezo ceramic transducers will do.

Pulling ,up' on the treble control achieves true bypass of the EQ and allows for passive operation. The passive sound is virtually identical to the active sound in tone and level if the EQ is set flat. In passive mode, only the volume controls work, but passive tone control can be added on custom instruments.

The onboard circuit in combination with the battery power supervisory is a patent pending product. When the blue LED starts to flash the battery is getting low and needs to be changed within roughly 10 hours.

All BassXX EQ's/Pre-amps are completely shielded, this means no additional shielding of your instrument control cavity is required.

Features:

- High definition amplifier design results in precise and smooth sound reproduction without signal losses.
- 0,1% precision metal film resistors in the signal path with a resultant noise factor of up to 10 times lower than standard thick film resistors.
- Low tolerance film capacitors featuring lowest distortion and superior linearity.
- Highest quality available trimmer pots.
- Completely shielded and encapsulated - no shielding inside the instrument is required.

Technical Data:

- Input Impedance: 2,2 MOhm
- Output Impedance: 47 kOhm
- Frequency Range: 7 Hz to 22kHz, $\pm 1,5$ dB
- Bass Control: 30 Hz, ± 15 dB
- Mid Control, Parametric: 240 Hz to 1,1 kHz, ± 12 dB
- Treble Control: 6,3 kHz, ± 12 dB
- Supply Voltage: 9V battery or accumulator
- Current Consumption: 1300 μ A
- Weight: 50g
- Dimensions: L 32 x B 25 x H 24 mm
- True Bypass
- Battery Power Supervision via LED
- Reverse Polarity Protection
- Fixation through concentric potentiometer (bass/treble) with active/passive push-pull switch
- Parametric Mid Control
- Completely shielded and encapsulated - no shielding required inside the instrument

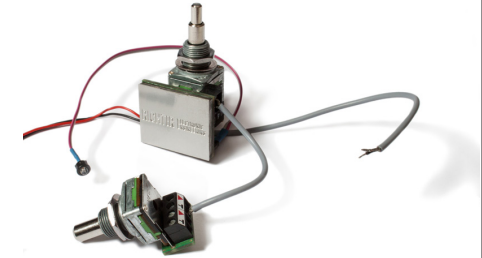
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RICHTER/BassParts 2BP-Bundle

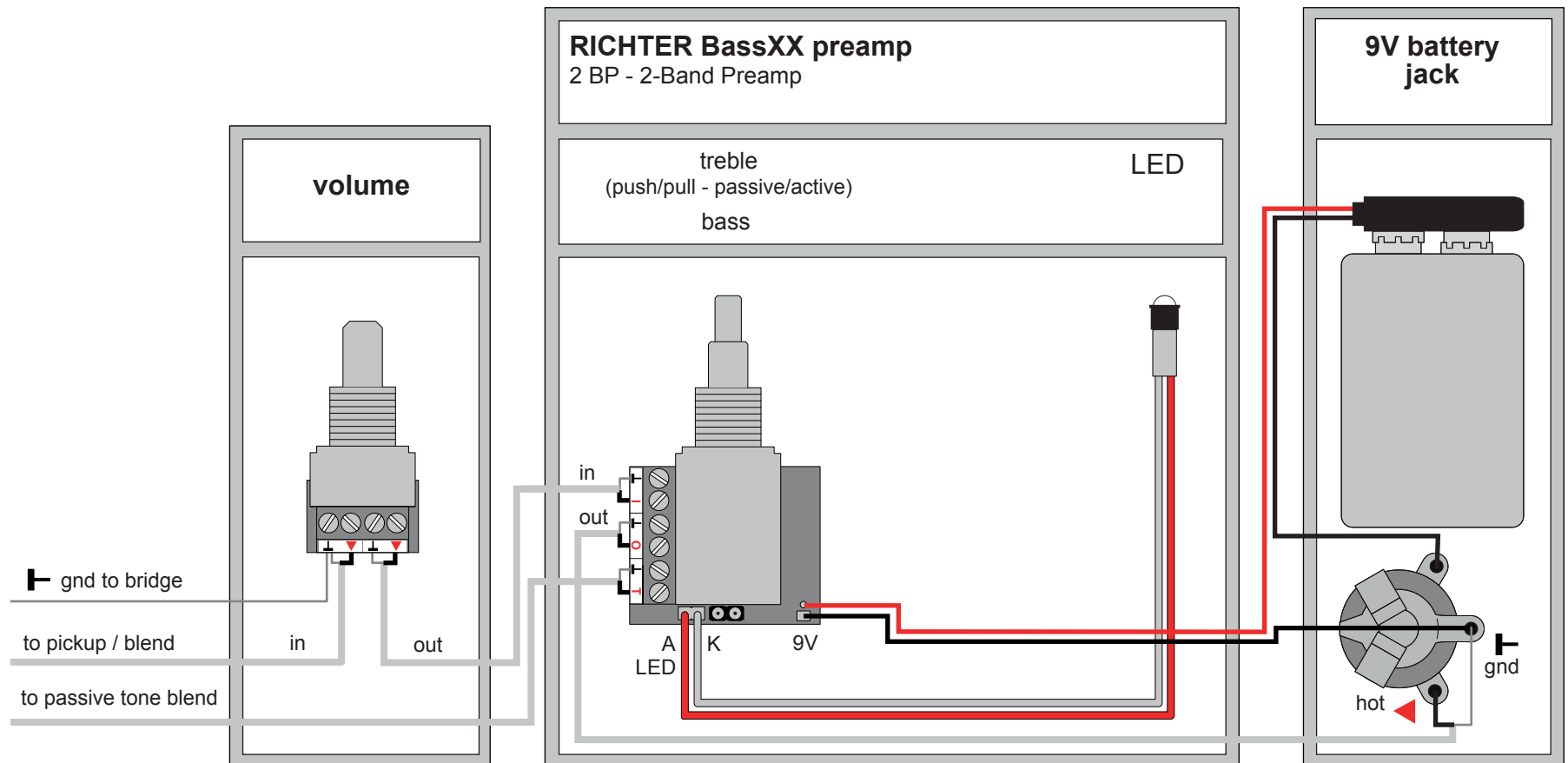
- Richter BassXX 2BP with LED
- Richter Volume
- 9 V batterie clip
- output jack

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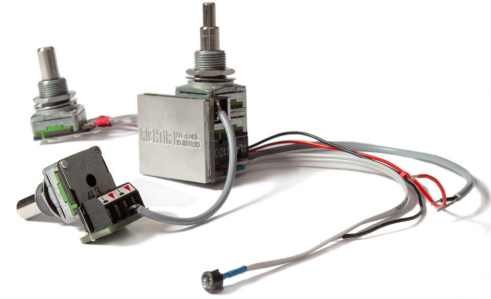
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RICHTER/BassParts 3BP-Bundle

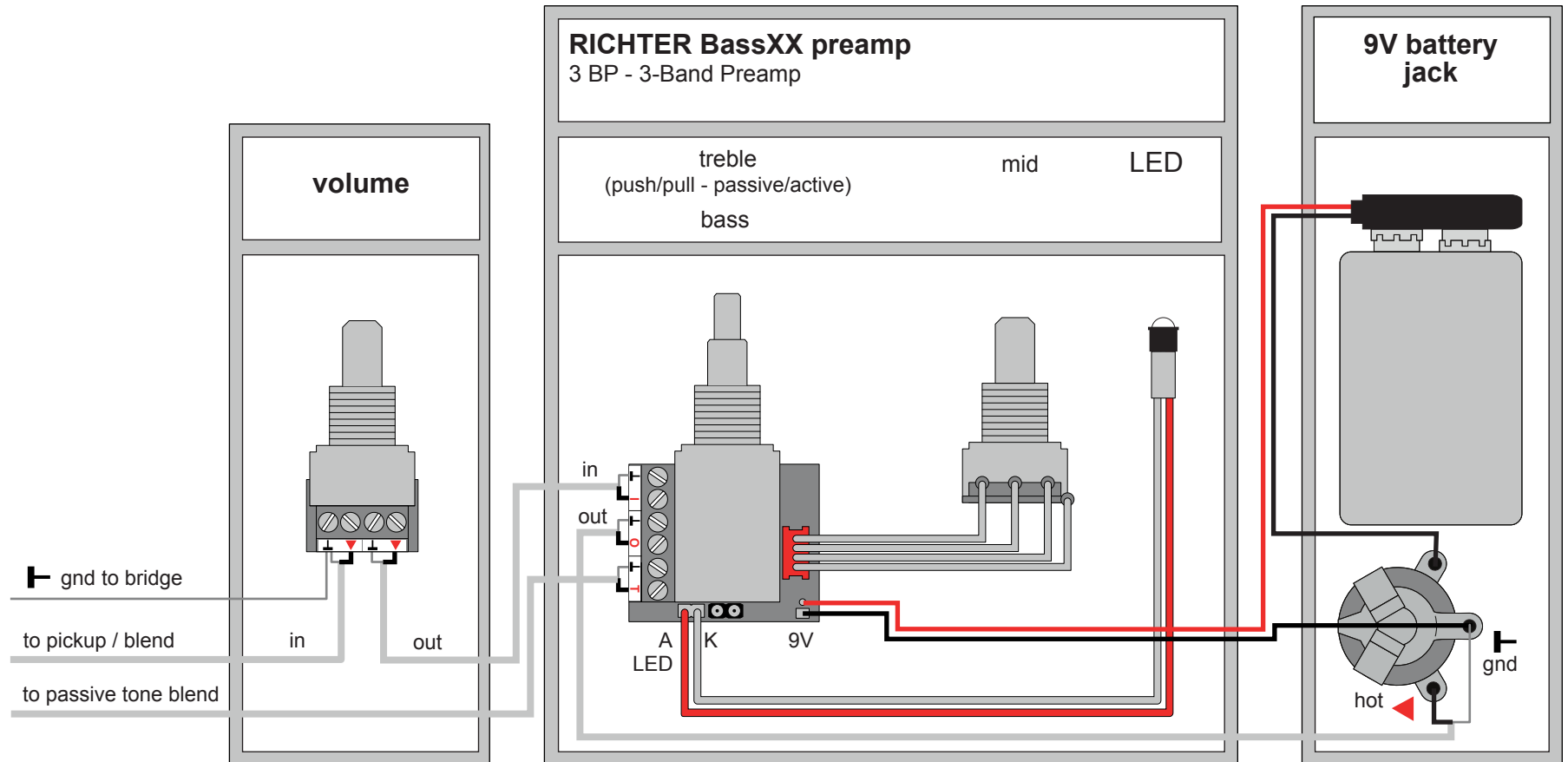
- Richter BassXX 3BP with LED
- Richter Volume
- 9 V batterie clip
- output jack

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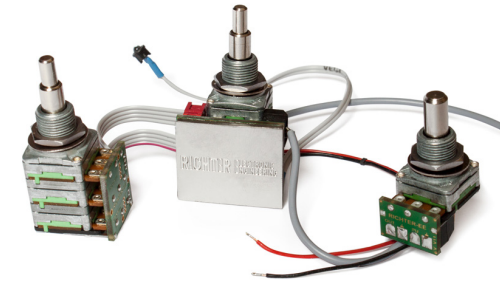
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RICHTER/BassParts 3BPP-Bundle

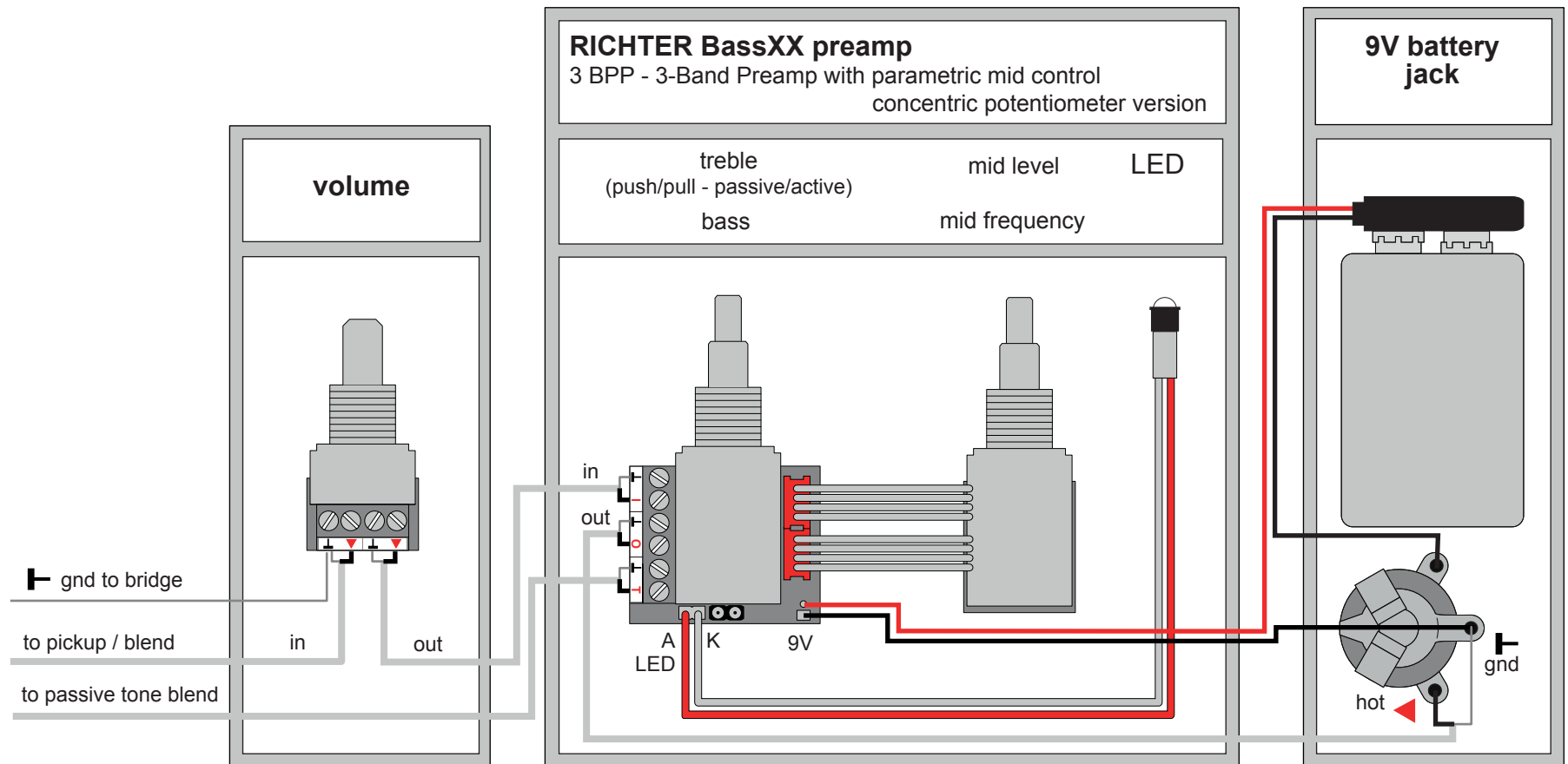
- Richter BassXX 3BPP with LED
- Richter Volume
- 9 V batterie clip
- output jack

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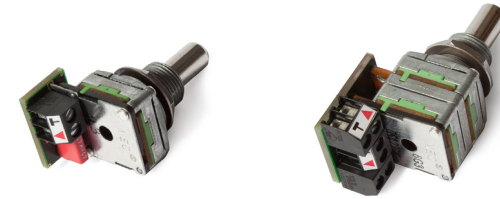
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RICHTER/BassParts 2BP-Bundle

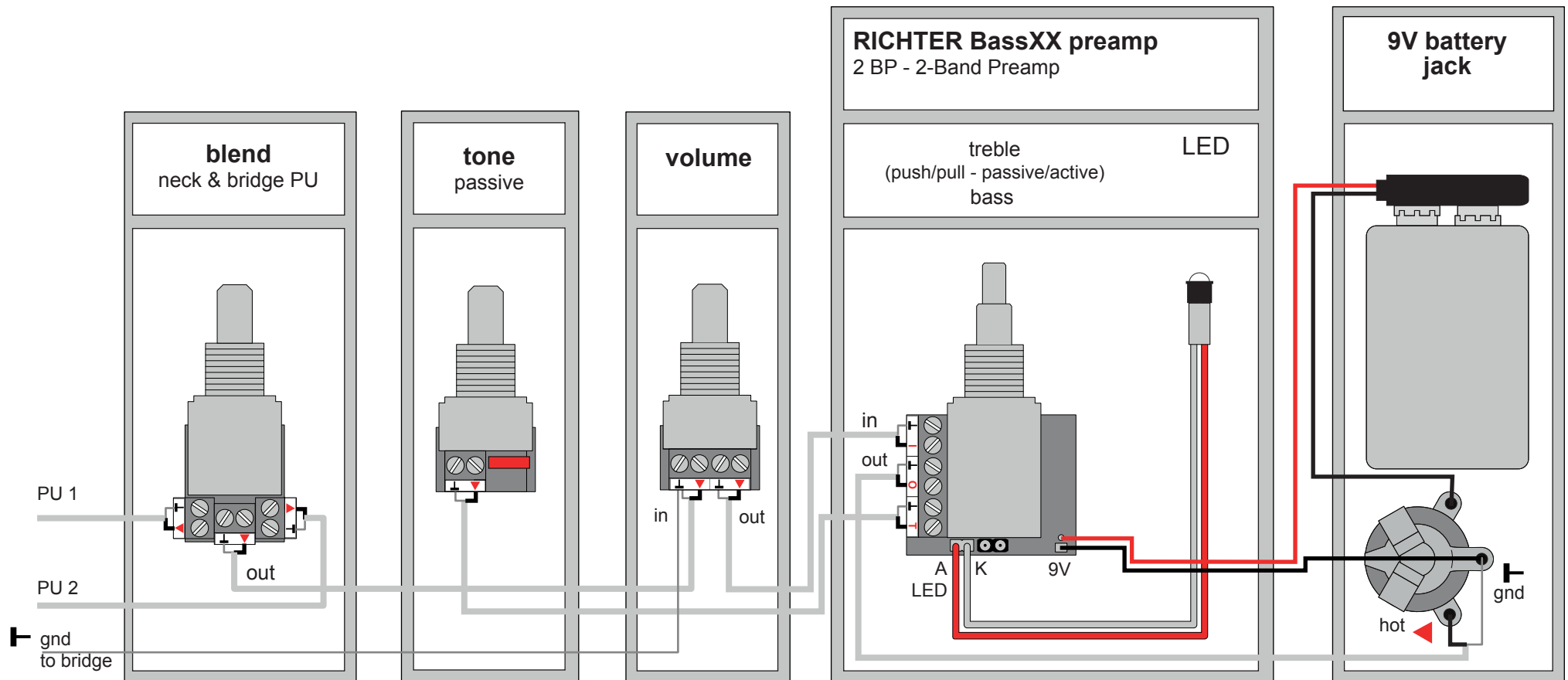
- Richter BassXX 2BP with LED
- Richter Volume, Richter passive Tone, Richter blend
- 9 V batterie clip
- output jack

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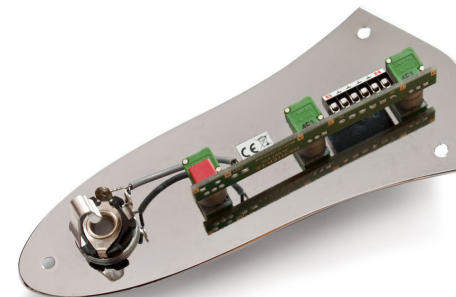
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RICHTER JB PASSIVE replacement kit with shielding

- incl. screws and black plastic knobs

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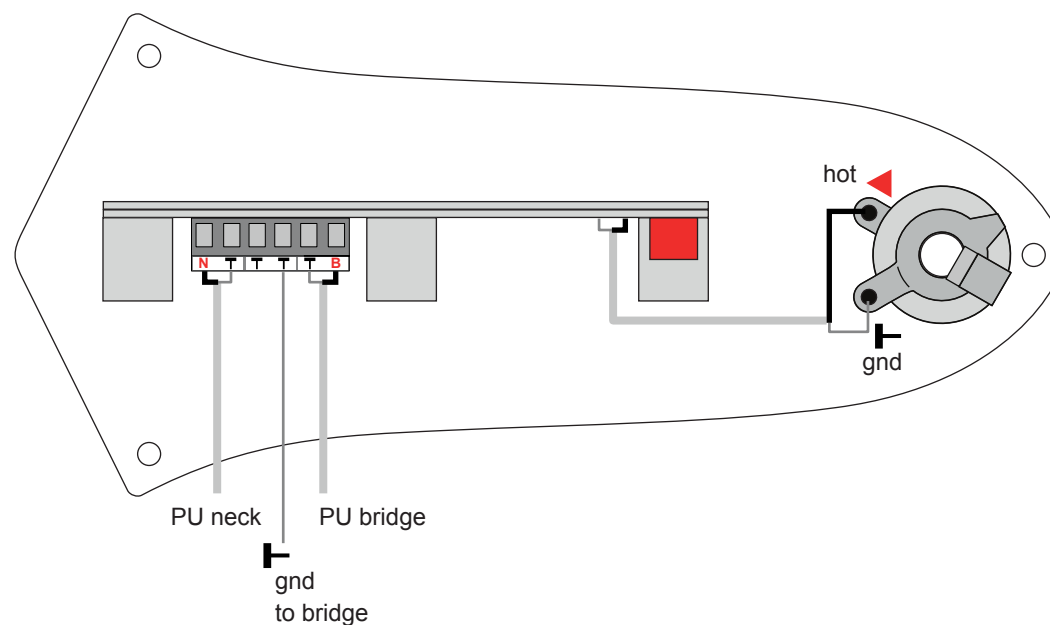


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The RICHTER JB PASSIVE control plate is an easy mounting component for passive bass guitars like the Jazz Bass TM. It provides two independent volume pots and one tone control pot. A shielded PCB replace the wiring - therefore no shielding inside the instrument is required.

Two screw terminals for easy and solder free connection of two pickups and three additional screws to fix the control plate are a guarantee for quick mounting on your instrument - ideal for luthiers and replacement. This unit will mounted up to ten times faster than a hand wiring is done.

With the high quality dustproof pots you won't have any problems with cracking noise during lifetime while turning the knob. The passive tone control is equipped with a film capacitor / COG capacitor which achieves best sound quality because of low losses and high linearity.



Features:

- Ready to use JB PASSIVE control plate for quick and easy mounting.
- High quality, dust proof pots.
- Low tolerance film / COG capacitors featuring lowest distortion and superior linearity.
- Completely shielded- no shielding inside the instrument is required.
- After manufacture each unit undergoes a throughout test and inspection. This ensures each unit passes strict quality standards. Serial number is carried out for traceability purposes.

Technical Data:

Volume1, Volume 2, Tone (passive)
Weight: 125g
Dimensions: L 155 x B 70 x H40 mm

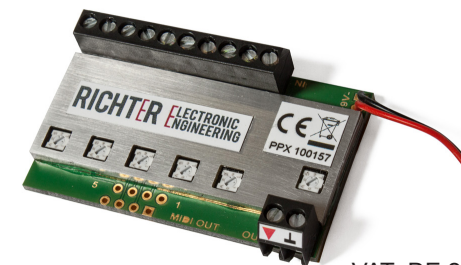
RICHTER ELECTRONIC ENGINEERING

RICHTER PPX

multichannel piezo preamp

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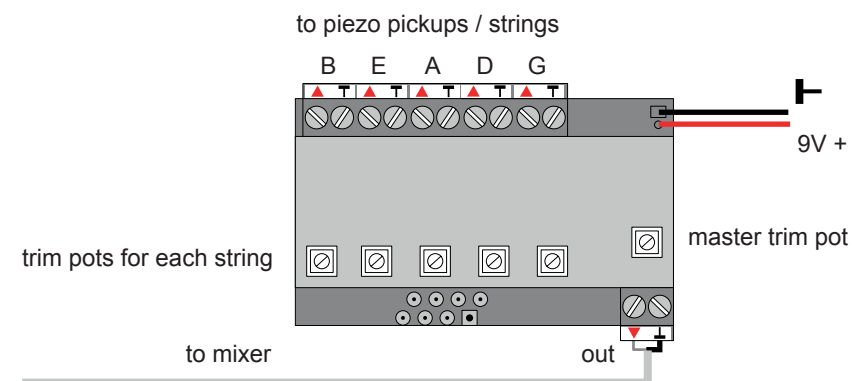


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The RICHTER PPX Piezo Preamp is a unique circuit featuring dedicated channels for each string of your bass or guitar. It is combinable with the piezo upgrade for ETS bridges.

Every channel includes an independent volume trim pot. This allows precise, independently adjustment and balance of your instrument from string to string. The following master volume trimmer provides for an overall output adjustment.

The Piezo Preamp superior tone and ultra low noise is not only achieved through careful circuit design and attention to detail - but also through selection of finest components available.



Features:

- High definition amplifier design results in precise and smooth sound reproduction without signal losses.
- Discrete class A input sections with hand selected and matched FETs.
- 0,1% precision metal film resistors in the signal path with a resultant noise factor of up to 10 times lower than standard thick film resistors.
- Low tolerance film capacitors featuring lowest distortion and superior linearity.
- Highest quality available trimmer pots.
- Completely shielded and encapsulated - no shielding inside the instrument is required.

Technical Data:

Input Impedance : 4,7MO
Output Impedance : 100kO
Frequency Range : 5 Hz to 50 kHz, $\pm 0,4$ dB
Supply Voltage : 9V to battery or accumulator
Current Consumption : (4/5-string) : 1,0 mA
Current Consumption : (6/7-string) : 1,4 mA
Dimensions (4/5-string) : L 50 x B 30 x H 10 mm
Dimensions (6/7-string) : L 65 x B 30 x H 10 mm
Weight (4/5-string) : 18,0 g / 19,0 g
Weight (6/7-string) : 24,0 g / 25,0 g

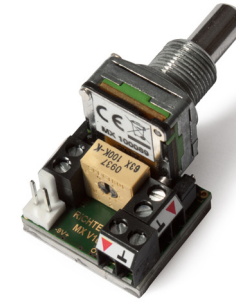
RICHTER ELECTRONIC ENGINEERING

RICHTER MX 2

active mixer with 2 inputs and center click, level trimmer for input 1

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The RICHTER MX2 active mixer preamp combines two buffered high impedance inputs via a blend potentiometer to one output.

In the center position - provided by a center click - the input signals have the same level. An additional cermet trim pot (MX2 circuit only) provides a matching between both input signal levels. An impedance selection for adaptation of passive (H) or active (L) signal sources via jumpers on both inputs ensure an optimized impedance matching which minimizes noise and distortion. Two screw terminals for easy and solder free connection of signal sources - magnetic, or piezo-pickups are a guarantee for quick and easy mounting inside your instrument - ideal for luthiers and replacement.

(H): high impedance input for passive PUs and Piezo Transducers (Jumper set on middle pin and the pin next to the PCB edge)

(L) : lower impedance input for active PUs and preamps like the Richter multichannel Piezo Preamp PPX (Jumper set on middle pin and the pin next to the screw terminal)

Features:

- Low noise, high definition amplifier design with precise and smooth sound reproduction without signal losses.
- Discrete class A input sections with hand selected and matched FETs.
- 0,1% precision metal film resistors in the signal path with a resultant noise factor of up to 10 times lower than standard thick film resistors.
- Low tolerance film and COG capacitors in the signal path featuring lowest distortion and superior linearity.
- Rugged high quality blend potentiometer with center click
- Cermet trimming potentiometer for input level matching
- Screw input terminals
- Completely shielded and encapsulated - no shielding inside the instrument required.
- jumper provide different input - impedances

Technical Data:

Input Impedance: (H): 2,2 M Ω , IN1, IN2
Input Impedance: (L): 100 k Ω , IN1, IN2
Output Impedance: 47 k Ω
Frequency Range: 9 Hz to 40 kHz, -2dB
Supply Voltage: 9V to 18V
Current Consumption: 850 μ A
Blend Potentiometer with center click
Input 1: Level matching via trim pot.
Weight: 26g
Dimensions: L 20 x W 24 x H 25 mm

