# electro-harmonix BATTALION BASS PREAMP + DI

Congratulations on your purchase of the Electro-Harmonix Battalion. The allanalog circuitry of the Battalion provides you with an amazing amount of features in a sturdy and compact pedal. Basic functions include a four-band equalizer, a compressor, and a noise gate. The Battalion also packs a fullfeatured MOSFET distortion section, including a three-way toggle switch to change where the distortion section is placed in the signal path, thereby expanding the tonal versatility of the preamp.

In addition, the Battalion includes a balanced, XLR output for use as a DI, as well as separate level and bypass controls for the XLR out. The ¼" output jack is headphone ready and perfect for quiet practicing. So, are you ready to head into the trenches? Road warriors and studio musicians alike will appreciate the stunning quality and multiple features at their disposal.

## - USING THE BATTALION -

Plug the 9VDC adapter into the jack on the top of the Battalion. The unit must be powered to pass a signal. Connect an instrument cable from your bass into the **INPUT** jack. Insert an instrument cable between the **OUTPUT** jack and a suitable amplifier, or insert an XLR cable between the **DI OUTPUT** jack and a suitable mixing console or recording interface. Click the **BYPASS** footswitch to engage the Battalion. The green LED lights to indicate that the unit is active, and the equalizer and gate will be in effect. Push in the **COMPRESSION** button to engage the compressor. The blue LED will illuminate to show that the compressor is active. Press the **DISTORTION** footswitch to activate distortion. The red LED will light indicating the distortion is active.

#### - CONTROLS -

**BYPASS Footswitch & Green LED** – The right LED illuminates when the effect is engaged. The LED will not light if the Battalion is bypassed. Press the footswitch to toggle between effect on and buffered bypass mode.

**VOL Knob** – Sets master output level of the pedal.

**GATE Knob** – Sets the threshold for the noise gate. Turn this up to cut signal when no/little bass signal is coming through.

**-10dB Pad Button** – Press to cut the input signal by 10dB, good for active basses or other basses with very strong output signals.

## **EQ CONTROLS:**

**BASS Knob** – Boost or cut low end. No effect when the knob is at 50%. Boosts/cuts frequencies below 200Hz.

**LO MID Knob** – Boost or cut low midrange frequencies. No effect when the knob is at 50%. Boost/cut at 280Hz.

**HI MID Knob** – Boost or cut high midrange frequencies. No effect when the knob is at 50%. Boost/cut at 750Hz.

**TREBLE Knob** – Boost or cut high end. No effect when the knob is at 50%. Boosts/cuts frequencies above 2kHz.

### **COMPRESSOR CONTROLS:**

**COMPRESSOR Button & Blue LED** — Use this switch to engage or bypass the compressor circuit. The blue LED will illuminate when the compressor is active. If active, the blue LED will stay lit even when the entire pedal is bypassed, indicating compression will be active upon activating the pedal.

**COMPRESSOR Knob** — Determines the intensity of the compression. Turn up to increase the compression ratio.

#### **DISTORTION CONTROLS:**

**DRIVE (distortion) Footswitch & Red LED** — Use this footswitch to engage or bypass the distortion circuit. The Left LED will illuminate when the distortion is active. If active, the LED will stay lit even when the entire pedal is bypassed, indicating distortion will be active upon activating the pedal.

**LEVEL Knob** – Sets the output level of the distortion section.

**BLEND Knob** – Controls mix between dry and distorted signal. Add more distortion by turning the knob up.

**DRIVE Knob** – Affects the intensity of the distortion

**TONE Knob** — Cuts the high end from the distortion signal as you turn the knob down.

**DISTORTION PRE/POST/DRY EQ Switch** – Determines where the distortion circuit falls in the pedal's signal path. The Battalion has three signal flow options when distortion is active:

**PRE EQ** — In this mode the distortion section comes right after the compressor (if active) and before the EQ. The dry signal blended in with the BLEND knob is the same signal that is fed into the beginning of the distortion section. In this mode the EQ can heavily affect the tonal character of the distorted signal.

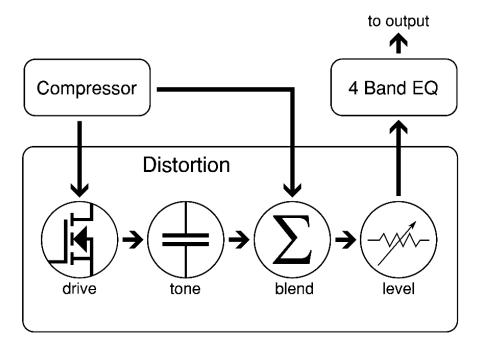
**POST EQ** – In this mode the EQ comes right after compressor (if active) and before the distortion. The dry signal blended in with the BLEND knob is the same signal fed into the beginning of the distortion section, which is the output of the EQ section. The EQ's effect on the distorted signal's tonal character is less noticeable in this mode, but boosting certain frequency areas can drive the distortion section, affecting the amount of distortion.

**DRY EQ** — In this mode, the distortion section comes right after the compressor (if active), but only the dry signal that is blended in with the BLEND knob is affected by the EQ. The distorted part of the signal is not affected by the EQ at all. In this mode you can heavily EQ the dry signal while leaving the distorted signal untouched, giving the option to simulate dual-amp or dual-channel bass setups. Either use the BLEND knob to mix between two distinct bass tones, or leave BLEND at max and use the DISTORTION footswitch as a pseudo channel switcher.

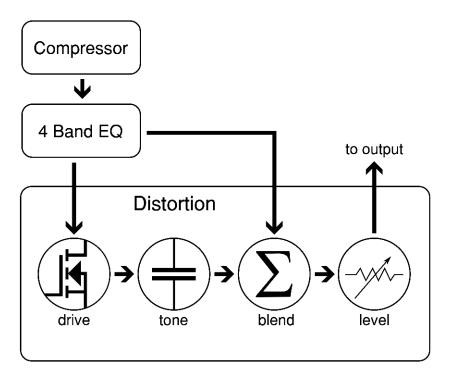
## **DISTORTION MODES (SIGNAL FLOW):**

The following signal flow charts illustrate the three distortion modes. These charts assume that the compressor is active – if it is inactive that block is simply bypassed (replaced by your dry bass signal). In all modes, the gate's detector comes before the compressor, right at the input to ensure the gate opens responsively, while the gate itself comes after all other processing, to mute any possible noise picked up through the signal chain. The main VOL knob is a master volume, also coming at the end of the signal chain.

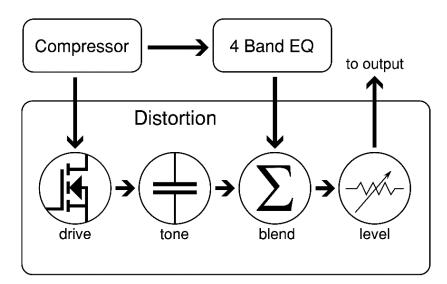
# Pre-EQ



## **Post-EQ**



# **Dry-EQ**



# **JACKS, XLR CONTROLS, POWER**

**INPUT Jack** – Plug your instrument or the output of another effects pedal into this  $\frac{1}{4}$ " jack. The input impedance is  $2.2M\Omega$ .

**DRY OUTPUT Jack** — Use this ¼" jack to output a dry, unaffected version of your bass signal.

**OUTPUT Jack** – Use this  $\frac{1}{4}$ " jack to output the signal, dry or affected based on the bypass status. Plug this jack into an amp, another effects pedal, or plug headphones into this jack. The output impedance is  $220\Omega$ .

**XLR Jack** – Use this to output a balanced signal.

**XLR VOL Knob** – Use this to set the volume of the XLR output.

**XLR Bypass Button** – Push in to have the XLR output the signal based on the bypass state of the pedal. Leave out to output the dry signal regardless of the bypass state of the pedal.

**Ground Lift Button** – Push in to keep ground connected to pin 1 of the XLR jack. Leave out to disconnect pin 1 from ground.

**9V Power Jack** – Plug the output of the factory-supplied EHX9.6DC 200mA AC adapter into the 9V power jack located at the top of the Battalion. The Battalion draws **100mA** at 9VDC with a **center negative plug**. The Battalion accepts Boss® and Ibanez® style AC Adapters capable of delivering at least 200mA.

#### - WARRANTY INFORMATION -

Please register online at http://www.ehx.com/product-registration or complete and return the enclosed warranty card within 10 days of purchase. Electro-Harmonix will repair or replace, at its discretion, a product that fails to operate due to defects in materials or workmanship for a period of one year from date of purchase. This applies only to original purchasers who have bought their product from an authorized Electro-Harmonix retailer. Repaired or replaced units will then be warranted for the unexpired portion of the original warranty term.

If you should need to return your unit for service within the warranty period, please contact the appropriate office listed below. Customers outside the regions listed below, please contact EHX Customer Service for information on warranty repairs at info@ehx.com or +1-718-937-8300. USA and Canadian customers: please obtain a **Return Authorization Number** (RA#) from EHX Customer Service before returning your product. Include—with your returned unit—a written description of the problem as well as your name, address, telephone number, e-mail address, RA# and a copy of your receipt clearly showing the purchase date.

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#### - FCC COMPLIANCE -

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. If the device is not installed and used in accordance with the instructions, it may cause harmful interference to radio communications and void the user's authority to guarantee the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.