

# electro-harmonix

## BLURST

### Modulated Filter

Congratulations on your purchase of the Electro-Harmonix Blurst. The Blurst is an analog low pass filter controllable by either internal or external modulation. Use the parameters of the pedal to create a variety of sweeping filter effects, including sounds reminiscent of vintage synthesizers.

While a typical envelope filter's modulation is controlled by your guitar's attack, the filter in the Blurst is modulated by an internal low frequency oscillator (LFO), similar to a tremolo or phaser. When you add an expression pedal or control voltage (CV) source to the Blurst, you have even greater control over either the LFO or the filter itself.

The Blurst's all-analog signal path contains a fourth-order low pass filter with variable resonance. Basic modulation is controllable via a variable internal LFO with a choice of three wave shapes. The modulation (including the LFO itself) is controlled digitally, allowing for tap-tempo (with three tap-divide options) and expression pedal control of your choice of three selectable parameters. These features greatly expand the variety of filtered sounds you can generate with the Blurst.

### - USING THE BLURST -

Power the Blurst with the included 9-volt power supply. The left, yellow LED pulses in time to the set modulation rate. Press the right **BYPASS** footswitch to engage the effect; the orange status LED lights to indicate that the effect is engaged.

Set the modulation rate with either the **RATE** knob or a combination of the **TAP** footswitch and the **TAP DIVIDE** toggle switch, whichever was most recently used. Toggle the **SHAPE** switch to vary the modulation shape between a triangle wave (▲), a rising saw-tooth (↗) or a falling saw-tooth (↘). Turn the **RANGE** control to set the frequency range of the filter modulation. The maximum range is set with the **RANGE** knob at 50% (or 12 o'clock as indicated by the center detent). As you turn the **RANGE** knob counterclockwise (towards **LO**), the range gets smaller and simultaneously shifts towards lower frequencies. When you turn the **RANGE** knob clockwise (towards **HI**) from the center detent, the range also gets smaller and shifts to higher frequencies.

**RESONANCE** sets the resonance (or Q factor) of the filter, and affects the output level of the filtered sound. Set the **BLEND** knob to control the blend of the dry and filtered signal. The **VOLUME** knob controls the output volume.

When you plug an expression pedal or a suitable control voltage (CV) source (such as an EHX 8-Step Program) into the **EXP** jack, set the three-way **EXP MODE** switch to select which parameter the expression pedal or CV source controls. In **RATE** mode you control the modulation rate, with the toe equaling the **RATE** knob, or, if tap-tempo is enabled, the heel equaling the current tap-tempo setting. In **RANGE** mode you control the frequency range of the filter, with the toe equaling the **RANGE** knob. In **FILTER** mode the expression pedal or CV source controls the cutoff frequency of the filter directly. In this mode, the **RATE** and **RANGE** controls will do nothing.

## - CONTROLS, I/O JACKS, POWER -

**BYPASS Footswitch & Orange Status LED** –The orange LED illuminates when the effect is engaged. The status LED glows brightly to signal that all operational voltages are satisfactory. Tap the footswitch to toggle between effect on and off. When the effect is off, the pedal is in true bypass mode.

**Yellow Filter Status LED** – The yellow LED illuminates based on the current cutoff frequency of the filter. In most cases it can be used as a visual representation of the rate of the LFO modulating the filter. NOTE: at certain settings—depending upon the position of the RANGE knob—the LED will remain lit or will not light at all.

**TAP Footswitch** – Use this footswitch to tap in a tempo for the LFO.

**VOLUME Knob** – Sets the Blurst's output volume in effect mode.

**BLEND Knob** – Sets the mix between dry and wet (filtered) signal.

**RESONANCE Knob** – Sets the resonance of the filter; also affects the volume of the filtered signal.

**RANGE Knob** –Sets the frequency range of the filter's modulation. Maximum range with the knob at 50%. Range gets smaller and centers around lower frequencies as you bring the knob from 50% to minimum. Range gets smaller and centers around higher frequencies as you bring the knob from 50% to maximum.

**RATE Knob** – Controls the speed of modulation.

**EXP MODE Switch** – Determines which parameter the expression pedal controls.

**TAP DIVIDE Switch** – Sets the note type based on tapped in quarter notes.

**SHAPE Switch** – Sets the waveform shape of the LFO.

**INPUT Jack** – Plug your instrument or the output of another effects pedal into this ¼" jack. The input impedance is 2.2MΩ.

**OUTPUT Jack** –Outputs the Blurst's audio signal. The output impedance is 220Ω.

**EXP Jack** – Plug a TRS expression pedal or other CV device (such as an EHX 8-Step Program) into this ¼" jack.

**9V Power Jack** – Plug the output of the AC adapter into the 9V power jack located at the top of the Blurst. The Blurst draws 56mA at 9VDC with a **center negative plug**. The Blurst accepts Boss® and Ibanez® style AC Adapters capable of delivering at least 100 mA.

## - 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](mailto: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.

### United States & Canada

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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.*

To hear demos on all EHX pedals visit us on the web at **[www.ehx.com](http://www.ehx.com)**

Email us at **[info@ehx.com](mailto:info@ehx.com)**