

electro-harmonix



## Nano Envelope Filter

Congratulations on your purchase of the **Nano Q-Tron** envelope-controlled filter! An envelope-controlled filter modulates an instrument's tone based on the musician's dynamics and playing style. The loudness of your instrument's signal forms a volume envelope that directly sweeps the cutoff or center frequency of the filter. In the Nano Q-Tron, three different filter types are available: Lowpass, Bandpass and Highpass, all controllable with variable Q and sensitivity knobs; yielding a wide range of tonal options.

## Operating Instructions

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Connect your guitar to the INPUT jack on the Nano Q-Tron and the AMP jack to your amp's input. Apply power if needed; your Nano Q-Tron might already have a 9V battery installed. Press the footswitch to ensure the STATUS LED is lit, now your Nano Q-Tron is ready to go.

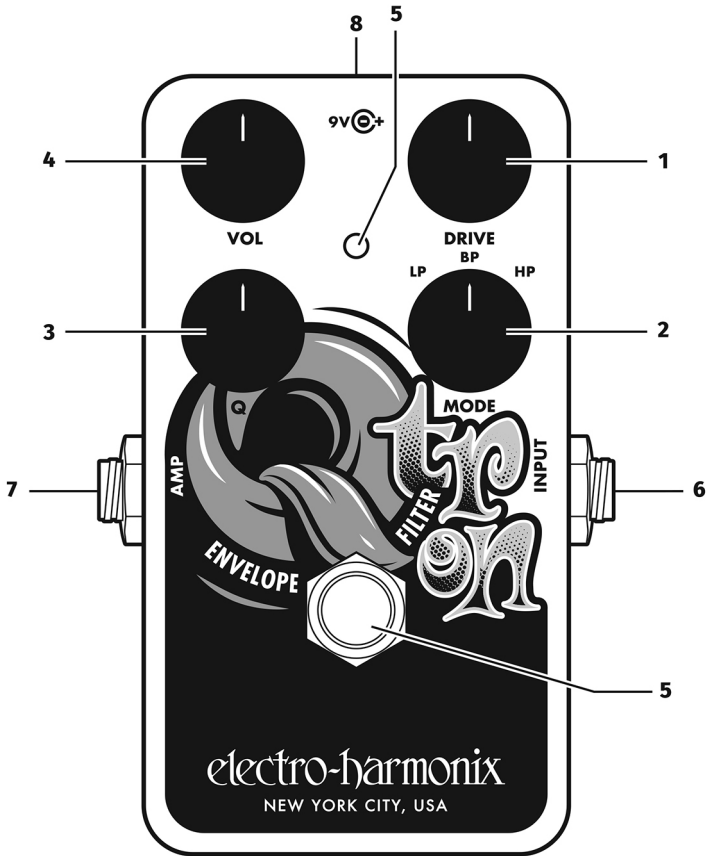
The Nano Q-Tron's effect is controlled by the musician's playing dynamics. A stronger attack or louder note will yield a more dramatic effect, while softer playing will produce more subtle effects. Use the full range of control settings in combination with different playing techniques to obtain several different and unique effects combinations.

**TIP:** You might find that the *DRIVE* and *Q* controls work best when they are in the middle of their range rather than maximized.

**TIP:** When you play a note into the Nano Q-Tron, its filter jumps up to a high frequency and then the frequency slowly descends according to the volume envelope of the notes you play. The louder your note, the higher in frequency the filter jumps.

## Controls and Connections

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**1. DRIVE Knob** Sets the envelope sensitivity gain, which in turn controls how wide the filter sweeps. The higher the DRIVE setting, the more the filter reacts to your playing and the higher in frequency the filter will jump when you play a note. Turn DRIVE clockwise for a wider filter sweep or counterclockwise to reduce the sweep range. If you turn DRIVE up too far, the filter sweep will max out at its highest frequency (approximately 3.5kHz) and remain at the highest frequency until the note has fully decayed. Louder instruments will typically use lower DRIVE settings while quieter instruments require higher settings. When learning the Nano Q-Tron, start with DRIVE at 12 o'clock.

**2. MODE Rotary Switch (LP / BP / HP)** Determines the frequency range that the filter allows to pass through. LP (Lowpass) mode emphasizes low frequencies, BP (Bandpass) middle frequencies and HP (Highpass) high frequencies.

**3. Q Knob** Sets the bandwidth of the filter. As Q is turned clockwise, the filter sounds more resonant or peakier, making the envelope effect more dramatic. Low settings of Q yield a less intense filter curve. Start with Q set to about 2 o'clock for a middle-of-the-road filter intensity.

**4. VOL Knob** Adjusts the overall volume at the OUTPUT jack. As VOL is turned clockwise, the output level increases. Use VOL to match the effect volume to your bypass volume or give the effect a volume boost.

**5. FOOTSWITCH and STATUS LED** The footswitch engages or bypasses the effect. The Status LED lights when the effect is engaged. The LED is off in bypass mode. The Nano Q-Tron employs True Bypass.

**6. INPUT Jack** Audio input to the Nano Q-Tron.

**7. AMP Jack** Audio output from the Nano Q-Tron. In bypass mode, the AMP jack is directly connected to the INPUT jack.

**8. 9V Power Jack** An optional 9VDC, center-negative power supply can be connected to the power jack to provide power without a battery. The Nano Q-Tron requires 10mA at 9VDC on a center-negative plug. Do not exceed 12VDC at the power jack.

When using a 9V battery, plugging into the INPUT jack activates power. The input cable should be removed when the unit is not in use to avoid running down the battery.

*To change the 9-volt battery, you must remove the 4 screws on the bottom of the Nano Q-Tron. Once the screws are removed, you can take off the bottom plate and change the battery. Please do not touch the circuit board or adjust the trim pot while the bottom plate is off or you may damage a component or set the filter sweep range to a non-ideal setting.*

## Notes and Specifications

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- ▶ Audio input impedance at INPUT jack: 330k $\Omega$
- ▶ Audio output impedance at OUTPUT jack: 300 $\Omega$
- ▶ Current draw: 10mA
- ▶ Maximum input signal level: +5.2dBu

## WARRANTY INFORMATION

Please register online at [www.ehx.com/product-registration](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. With your returned unit, include 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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This warranty gives a purchaser specific legal rights. A purchaser may have even greater rights depending upon the laws of the jurisdiction within which the product was purchased.



The CE logo indicates that this product has been tested and shown to conform with all applicable European Conformity directives.



The WEEE or "trashcan" logo indicates that this product is made up of electronic components that should not be trashed alongside household waste but instead should be recycled by a proper electrical waste facility.



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