



## **Q-TRON+ Envelope Controlled Filter with External Loop and "Response" Control**

Congratulations on your purchase of the Q-Tron+ enhanced envelope controlled filter. It is a very powerful tool for musical expression. Please take a few minutes to familiarize yourself with the Q-Tron+ features and controls.

Envelope controlled filters are unique sound modifiers since the intensity of the effect is controlled by the user's player dynamics. The volume (also known as the envelope) of the musician's notes are used to control a swept filter. As the volume of your notes changes, so does the peak frequency of the filter.

### **-CONTROLS-**

**Gain Control** (0-11)– In normal mode, the gain control acts as a filter sensitivity control and has no effect on the unit's output volume. In Boost mode, the Gain control functions as both a volume control and the filter sensitivity control.

**Boost Switch** (Normal/Boost) – Normal mode passes input signal through the filter at its original level. Boost mode increases the signal gain to the filter according to the Gain control setting.

**Response Switch** (Fast/Slow) – Changes the sweep response between two optimized settings. "Slow" response creates a smooth vowel-like response. "Fast" response produces a snappy response identical to the original Q-Tron.

**Drive Switch** (Up/Down) – Selects the direction of the filter sweep.

**Range Switch** (Hi/Lo) – Emphasizes vowel-like sounds in low position and overtones in high position.

**Peak Control** (0-11) – Determines the resonance peak or Q of the filter. Turning the control clockwise increases the Q and creates a more dramatic effect.

**Mode Switch** (LP, BP, HP, Mix) – Determines what frequency range the filter will pass. Emphasize bass with Low Pass, midrange in Band Pass and treble with the High Pass. Mix mode combines BP with the dry instrument signal.

**Bypass Switch** (In/Out) - Toggles between effect mode and True Bypass. When the Q-Tron+ is in bypass, the effect loop is also bypassed.

**Your Playing Dynamics**-The Q-tron's effect is controlled by the user's player dynamics. Strong attack will yield a more dramatic effect, while a softer playing yields more subtle ones.

### **-Effects-**

The Effects loop allows you to place an additional musical effect between the Q-Tron's preamp and filter sections without any alteration of the envelope drive. This allows the full dynamic response to your playing while greatly increasing the sound possibilities: Fuzz, soft distortion, echo and chorus, octave divider etc.

When you use an external effect in the Effect's Loop, the footswitch on the external effect can control whether the signal is "in" or "out". The Q-Tron footswitch will always switch between the Q-Tron process and the original input signal regardless of the state of the external effect.

### **-Jacks-**

**Input Jack**- Musical instrument signal input. The input impedance presented at this jack is 300 k $\Omega$ .

**Effects Out Jack**- Output to amplifier. The output impedance is 250  $\Omega$ .

**FX Loop Send Jack**- Musical instrument signal output to external musical effect. The output impedance is 250  $\Omega$ .

**FX Loop Return Jack-** From External musical effect output to Q-Tron+ filter process. The input impedance presented at this jack is 300 k $\Omega$ .

### **-AC Adaptor-**

Your Q-Tron+ comes equipped with a 24 volt DC (inner positive) / 100mA external power adapter. Use only the power adapter that is supplied! Using the wrong adapter can cause serious bodily injury and may damage your unit. This will void the warranty.

### **-Operation-**

Set all controls to minimum. Connect your instrument to the input jack and your amplifier to the effect out jack. Optionally connect an external effect to the Effects Loop. The unit's power LED should be lit. Set the Q-Tron's controls to the following:

**Drive Switch:** UP

**Response Switch:** Slow

**Range Switch:** Low

**Mode Switch:** BP

**Peak Control:** Maximum

**Boost Control:** Normal

**Gain Control:** Variable\*

\* Vary the gain control until the Overload Indicator LED lights on the loudest notes that you play. If no effect is noticeable, depress the Bypass switch to engage the effect. With this setting the user should be able to approximate the sound of an automatic wah-wah pedal.

Experiment with these settings to see how the Q-Tron reacts to playing dynamics. Adjusting the Gain and Peak controls will vary the amount and intensity of the effect. For tonal variations adjust the Range, Mode and Drive controls.

To attain an effect similar to an original Mu-Tron III, set the Q-Tron's controls to the following:

**Drive Switch:** Down  
**Response Switch:** Fast  
**Range Switch:** Low  
**Mode Switch:** BP  
**Peak Control:** Mid Point  
**Boost Control:** Boost  
**Gain Control:** Variable\*

\* Vary the gain control until the Overload Indicator LED lights on the loudest notes that you play. Increasing gain will saturate the Filter, yielding the famous "chewy" Mu-Tron like sounds. Adjusting the peak control will vary the intensity of the effect. For tonal variations, adjust the Range, Mode and Drive controls.

### **-Options for use-**

The Q-Tron+ can be used with a wide variety of electronic instruments. Here are some setting tips for use with different instrument types.

**Range Control-** Lo range is best for rhythm guitar and bass. Hi range is best for lead guitar, brass and winds. Both ranges work well for keyboards.

**Mix Mode:** Works especially well with bass guitar (may require higher peak settings).

**Drive Switch:** Down drive works well with Bass guitar. Up Drive is best with guitar and keyboards.

The Q-Tron+ can also be used in conjunction with other effects pedals. Here are some interesting combinations.

**Q-Tron+ and Big Muff** (or tube amp distortion)- Place the distortion device after the Q-tron+ in the signal chain, or effects loop. The use of distortion will dramatically increase the intensity of the Q-Tron's effect. You can also place the distortion before the Q-Tron+ but this combination tends to flatten the dynamic response range of the effect.

**Q-Tron+ into a Q-Tron+-**(or another Q-Tron in effects loop)- Try this with one unit in the up drive position and the other in the down drive position.

**Q-Tron+ and Octave Multiplexer-** Place the octave divider before the Q-Tron+ in the signal chain or in the effects loop. Use an octave divider, which maintains the natural envelope of the signal. This combination will yield sounds similar to an analog synthesizer.

**Q-Tron+ and compressor, flanger, reverb etc in effects loop-** create interesting tonal colors while retaining full control of the Q-Tron+'s filter sweep.

Try experimenting with other effects and effect placement (before Q-Tron+, after it or in the effects loop) to achieve your own unique sound. When used properly the Q-tron will provide a lifetime of playing pleasure.

## - 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, and RA#; and a copy of your receipt clearly showing the purchase date.

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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.

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)**

## FCC COMPLIANCE

*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.*