

## Technical Specifications:

Size: 102 x 121 x 52 mm / 4" x 4.75" x 2"

Weight (incl. battery): 400g / 0.88lbs

Current draw: 6.3mA (3.7mA in Bypass mode) at 9V.

Center Frequencies: 80, 160, 350, 650, 1300 and 3000 Hz (+/- 20%)

Made in Germany.

## Contact:

If you have any questions or comments about our products and services, or suggestions for improvements or additions, please let us know. We appreciate any feedback, suggestions, and concerns. Please use the contact form on our website [www.tortenmann.de](http://www.tortenmann.de) or write to [info@tortenmann.de](mailto:info@tortenmann.de).



## Battery Replacement:

1. Remove the four screws holding the bottom panel.
2. Lift the bottom panel.
3. Carefully disconnect the old battery from the clip and connect a new one of the same type. Be sure not to apply too much force to the connector clip and to the leads.
4. Put the battery back into the unit. Make sure that it fits tightly and no leads are being bent or squeezed when reattaching the bottom panel.
5. Tighten the mounting screws with moderate tension.

The TF-1 Filter Booster is designed and manufactured with high quality materials and components, which can be recycled and reused. Please act according to your local rules and do not dispose old products with your normal household waste. All packaging consists of recycled paper and can be disposed via regular paper recycling. Batteries must be collected and disposed of separately from household waste.



## Warranty information:

Tortenmann products carry a 2 year warranty to the original owner with proof of purchase. The warranty covers damage by our errors only, and not any modification or repair done by anyone other than Tortenmann. Batteries are not covered.

Every unit is thoroughly tested and inspected prior to shipment. Still, if you experience any problems with your TF-1, do not hesitate to contact us via [service@tortenmann.de](mailto:service@tortenmann.de). Alternatively, contact the nearest Tortenmann dealer, who will probably be able to repair the unit or, in case of a defect covered by the warranty, will take charge of the shipping procedure.

# TF-1 Filter Booster Operating Instructions

- Effective from serial #151 -



## Overview:

The TF-1 Filter Booster is a versatile electrical instrument preamplifier that allows for frequency-selective level boost or cut in various filter shapes. Six frequency center points covering the whole range of an electric guitar or similar instruments are available for a boost or cut of up to 20dB, with the amount being continuously adjustable. The shape of the filter can be either low shelf, bell or high shelf, with the possibility of blending between the three shapes.

Being completely based on germanium semiconductor circuitry, the TF-1 is a rich and colourful sounding device by design, it yet retains a tonal sweetness even at the highest gain settings.

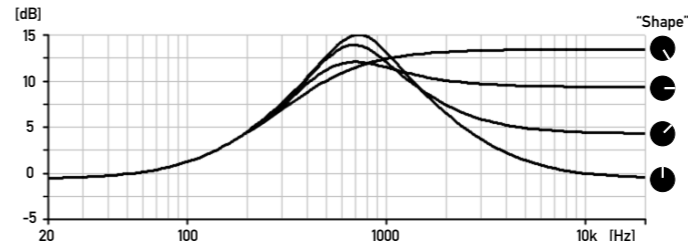
Extreme dependability has been stressed in the design of the TF-1 Filter Booster. Like all Tortenmann products, it is hand wired and assembled with only the highest quality components and with the greatest care. We are confident that the TF-1 will provide you with many years of satisfying and trouble-free use.

## Controls:

The TF-1 filter circuitry consists of a passive LC-network (resonant circuit) followed by an output amplifier that makes up for the level loss of the filter network. For every frequency available, an alternate LC-combination is connected into the circuit. Six octave-spaced frequency center points are selectable by means of the "Frequency" rotary switch, its values being about 80, 160, 350, 700, 1500 and 3000Hz.

The setting of the "Lift/Cut" toggle switch determines if the selected frequency range will be boosted ("Lift") or cut ("Cut"). The actual amount of boost (or cut) may be set by means of the "Gain" control, the clockwise position being the full boost/cut setting. At fully counter-clockwise rotation, the signal passes unaffected. However, to balance the overall loudness, there's a constant 9dB level increase in "Cut" mode.

The "Shape" control allows for blending bell and shelf filter curves. At half rotation, a bell curve is selected. At the counter-clockwise position, a low shelf is selected (i.e. a bass boost or cut). At the clockwise position, a high shelf is selected (treble boost/cut). By turning the "Shape" control from the center position towards either side, the filter curve slowly blends over from bell to shelf. At first, the bell is growing a shoulder on the respective low or high frequency side, with the peak decreasing at the same time (see figure).



The output amplifier gain is preset such that the overall gain of the unit is about unity, disregarding any boost that might be selected. The gain of the output stage can be adjusted by means of a trimmable potentiometer on the circuit board (to be operated with a small screwdriver).

By pulling the "Gain" control, an additional full range boost of about 20 dB is introduced ("↑Boost"). Note, however, that the output amplifier works at full gain in this setting. A reduced bass response and increased distortion results.

The footswitch puts the unit into and out of the signal path, the status being indicated by the lamp (off when in bypass mode).

For more information and illustrations please visit [www.tortenmann.de/product.php?id=tf-1](http://www.tortenmann.de/product.php?id=tf-1)

## Precautions:

The TF-1 contains an inductance coil that is susceptible to hum pickup by magnetic stray fields, the most common cause of this being the mains transformers of the guitar amplifier. Hum problems can often be reduced by rotating and/or repositioning the pedal box. Avoid putting the TF-1 directly onto the amp.

## Connectors:

⚡ Input: a mono TRS jack must be plugged in order to turn on the unit. To save battery power, always disconnect the input jack when not in use. The output connector is located on the opposite side of the unit and is not marked.

⚡ External power supply: accepts a standard 2.1mm barrel jack connector with a negative center pin. It may be used to connect a DC power supply of 9-18V.

