WAVES API 550 Emulation Plugins User Manual

WAVES API 550 Emulation Plugins User Manual

Contents

Introduction

Welcome

Thank you for choosing Waves! In order to get the most out of your new Waves plugin, please take a moment to read this user guide.

To install software and manage your licenses, you need to have a free Waves account. Sign up at **www.waves.com**. With a Waves account you can keep track of your products, renew your Waves Update Plan, participate in bonus programs, and keep up to date with important information.

We suggest that you become familiar with the Waves Support pages: **www.waves.com/support.** There are technical articles about installation, troubleshooting, specifications, and more. Plus, you'll find company contact information and Waves Support news.

Product Overview

The Waves API 550 consists of the API 550A, a 3-Band parametric equalizer with 5 fixed cutoff points per band and the API 550B, a 4-Band parametric equalizer with 7 fixed cutoff points per band.

Modeled on the late 1960's legend, the API 550A EQ delivers a sound that has been a hallmark of high end studios for decades. It provides reciprocal equalization at 15 points in 5 steps of boost divided into three overlapping ranges. The high and low frequency ranges are individually selectable as either peaking or shelving, and a band-pass filter can be inserted independently of all other settings.

Featuring four overlapped EQ bands, the API 550B features 7 switchable filter frequencies spanning up to 5 octaves per band. "Proportional Q" automatically widens the filter bandwidth at lower settings and narrows it at higher settings. It even lets you undo previous processing, affect or even reverse tonal modifications. With its vast range of tonal possibilities, the API 550B is an exceptionally versatile EQ.

Components

WaveShell technology enables us to split Waves processors into smaller plug-ins, which we call components. Having a choice of components for a particular processor gives you the flexibility to choose the configuration best suited to your material.

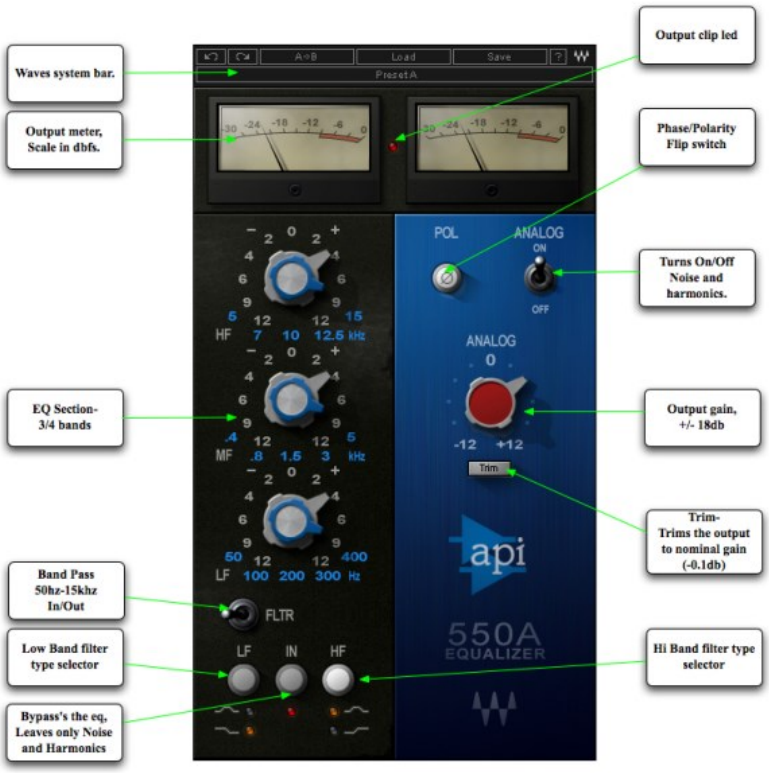
The API 550 has four component processors:

- **API 550A Stereo** – A 3-Band stereo equalizer
- **API 550A Mono** – A 3-Band mono equalizer
- **API 550B Stereo** – A 4-Band stereo equalizer
- **API 550B Mono** – A 4-Band mono equalizer

Quickstart Guide

Approach the Waves API 550 as you would any conventional EQ. Since the API 550 features “Proportional Q,” which intuitively widens the filter bandwidth at lower settings and narrows it at higher settings, feel free to push the API 550 harder than you normally would other equalizers. The API 550 will deliver smooth, natural, and musical sound even at the most extreme settings.

Controls and Interface



EQ Section

API 550A Controls

- **Low Band Gain**
  - Range
  - 12dB to +12dB (2-3dB steps)
  - Default
  - 0dB
- **Low Band Frequency**
  - Filter types
  - Shelf, Bell
  - Default
  - Shelf
  - Cutoff points
  - 50Hz, 100Hz, 200Hz, 300Hz, 400Hz
  - Default
  - 50Hz
- **Mid Band Gain**
  - Range
  - 12dB to +12dB (2-3dB steps)
  - Default
  - 0dB
- **Mid Band Frequency**
  - Range
  - .4kHz, .8kHz, 1.5kHz, 3kHz, 5kHz
  - Default
  - 1.5kHz

    - Filter types
    - Bell
- **High Band Gain**
    - Range
    - -12dB to +12dB (2-3dB steps)
    - Default
    - 0dB
- **High Band Frequency**
    - Range
    - 5kHz, 7kHz, 10kHz, 12.5kHz, 15kHz
    - Default
    - 7kHz

Bandpass Filter
Applies a 50Hz-15kHz bandpass filter to the entire signal

- **Low Shelf/Bell Selector**
    - Range
    - Shelf or Bell
    - Default
    - Shelf
- **High Shelf/Bell Selector**
    - Range
    - Shelf or Bell
    - Default
    - Shelf

API 550B Controls

- **Low Band Gain**
    - Range
    - -12dB to +12dB (2-3dB steps)
    - Default
    - 0dB
- **Low Band Frequency**
    - Range
    - 30Hz, 40Hz, 50Hz, 100Hz, 200Hz, 300Hz, 400Hz
    - Default
    - 50Hz
    - Filter types
    - Shelf, Bell
    - Cutoff points
    - 30Hz, 40Hz, 50Hz, 100Hz, 200Hz, 300Hz, 400Hz
- **Low Mid Band Gain**

    - Range
    - -12dB to +12dB (2-3dB steps)
    - Default
    - 0dB
- **Low Mid Band Frequency**
    - Range
    - 75Hz, 150Hz, 180Hz, 240Hz, 500Hz, 700Hz, 1kHz
    - Default
    - 500Hz
    - Filter types
    - Bell
    - Cutoff points
    - 75Hz, 150Hz, 180Hz, 240Hz, 500Hz, 700Hz, 1kHz
- **High Mid Band Gain**
    - Range
    - -12dB to +12dB (2-3dB steps)
    - Default
    - 0dB
- **High Mid Band Frequency**
    - Range
    - 0.8kHz, 1.5kHz, 3kHz, 5kHz, 8kHz, 10kHz, 12.5kHz
    - Default
    - 5kHz
    - Filter types
    - Bell
    - Cutoff points
    - 0.8kHz, 1.5kHz, 3kHz, 5kHz, 8kHz, 10kHz, 12.5kHz
- **High Band Gain**
    - Range
    - -12dB to 12dB (2-3dB steps)
    - Default
    - Off
- **High Band Frequency**
    - Range
    - 2.5kHz, 5kHz, 7kHz, 10kHz, 12.5kHz, 15kHz, 20kHz
    - Default
    - 10kHz
    - Filter types
    - Shelf, Bell
    - Cutoff points
    - 2.5kHz, 5kHz, 7kHz, 10kHz, 12.5kHz, 15kHz, 20kHz
- **Low Shelf/Bell Selector**
    - Range

- Shelf or Bell
- Default
- Shelf

- **High Shelf/Bell Selector**
  - Range
  - Shelf or Bell
  - Default
  - Shelf
  - In
- **Turns the EQ On/Off but leaves the Analog modeling.**
  - Range
  - On/Off
  - Default
  - On

Output Section

The Output section, which is identical on both the API 550A and API 550B, consists of controls for Polarity (Phase Inversion) Analog Modeling, Output Level, and Trim.

- **Pol (Polarity)**

  Shifts the phase by 180 degrees.
  - Range
  - 0deg-180deg

- Default
- 0deg

- **Analog**

  Turns the Analog modeling on and off.
  - Range
  - On/Off
  - Default
  - Off
- **Output**

  Controls the output level.
  - Range
  - -18dB to +18dB (in 0.1dB steps)
  - Default
  - 0dB
- **Trim**

  Displays the maximum peak level of the output signal and its distance from nominal gain (-0.1dBfs).
  - Range
  - -inf to 0dB
  - Default
  - -inf

Meters

The API 550 meters display output level in dBFS. The LED located between the two meters lights up when output signal is clipping

WaveSystem Toolbar

Use the bar at the top of the plugin to save and load presets, compare settings, undo and redo steps, and resize the plugin. To learn more, click the icon at the upper-right corner of the window and open the WaveSystem Guide.

Appendix A – 550A Controls

Control	Range	Default
Low Band Gain	-12dB to 12dB (2-3dB's steps)	0dB
Low Band Frequency	50Hz,100Hz,200Hz,300Hz,400Hz	50Hz
Mid Band Gain	-12dB to 12dB(2-3dB's steps)	0dB
Mid Band Frequency	.4kHz,.8kHz,1.5kHz,3kHz,5kHz.	1.5kHz
High Band Gain	-12dB to 12dB(2-3dB's steps)	0dB
High Band Frequency	5kHz,7kHz,10kHz,12.5kHz,15kHz.	7kHz
Filter	Bandpass 50Hz-15kHz	Off
Low shelf/bell selector	Shelf or Bell	Shelf
High shelf/bell selector	Shelf or Bell	Shelf
Output	-18dB to 18dB	0dB
Trim	-inf to 0dB	-inf
Analog	On/Off	Off
Phase	0deg- 180deg	0deg

Appendix B – 550B Controls

Control	Range	Default
Low Band Gain	-12dB to 12dB(2-3dB's steps)	0dB
Low Band Frequency	30Hz,40Hz,50Hz,100Hz,200Hz,300Hz,400Hz	50Hz
Low Mid Band Gain	-12dB to 12dB(2-3dB's steps)	0dB
Low Mid Band Frequency	75Hz,150Hz,180Hz,240Hz,500Hz,700Hz,1kHz.	500Hz
High Mid Band Gain	-12dB to 12dB(2-3dB's steps)	0dB
High Mid Band Frequency	0.8kHz,1.5kHz,3kHz,5kHz,8kHz,10kHz,12.5kHz.	5kHz
High Band Gain	-12dB to 12dB(2-3dB's steps)	Off
High Band Frequency	2.5kHz,5kHz,7kHz,10kHz,12.5kHz,15kHz,20kHz.	10kHz
Low shelf/bell selector	Shelf or Bell	Shelf
High shelf/bell selector	Shelf or Bell	Shelf
Output	-18dB to 18dB	0dB
Trim	-inf to 0dB	-inf
Analog	On/Off	Off
Phase	0deg- 180deg	0deg

Documents / Resources

	WAVES API 550 Emulation Plugins [pdf] User Manual 550A, 550B, API 550 Emulation Plugins, API 550, Emulation Plugins, Plugins

References

- Waves Audio | Mixing, Mastering & Music Production Tools
- Support | Waves

Manuals+, home privacy