

Thank you for purchasing Bettermaker Stereo Passive Equalizer!

#### IMPORTANT SAFFTY INFORMATION

Do not operate this unit in the presence of rain, liquids or condensing moisture. Liquid entering the product enclosure presents the risk of electric shock, fire or permanent failure. Use the unit in well ventilated enviroment. Make sure it is not exposed to high temperatures as it might affect the performance.

Use provided AC/DC adapter only. It will work with variety of mains voltages and all most popular socket types around the world.

No user serviceable parts are available inside the unit. Do not remove the top lid, as it will void the warranty. In case of any questions or issues, please contact your seller.



### CONNECTIONS

For best audio performance use balanced XLRs and quality USB cables (like the one provided with this unit). Please note that the USB link is for DAW control and recall only. It does not stream audio, so the XLR connection with AD/DA converters is needed.

The unit requires external power supply and will not work using USB power only.

### **SOFTWARE**

For most recent versions of firmware and DAW plugins please visit www.bettermaker.com







POWER BUTTON Hold for ON/STAND-BY ENGAGE BUTTON with TRUE BYPASS

LOW FREQUENCY SELECTOR BUTTONS



HIGH FREQUENCY BOOST KNOB



BANDWIDTH KNOB for HIGH BOOST



### **GAIN BUTTON EXPLAINED**

In normal mode all five knobs control various sections of the passive filter. When the GAIN button is pressed the HIGH CUT knob changes its function and allows to adjust the output level of the unit within +/- 8dB range.

Press the GAIN button again to return to normal mode.

To set the unit to flat frequency response (all filters set to zero) hold the GAIN button for 2 seconds. All controls on the front panel will blink and the unit will set back to defaults.

HIGH FREQUENCY CUT KNOB



HIGH CUT FREQUENCY SELECTOR BUTTONS GAIN SET &
RESET TO
DEFAULTS
BUTTON
More details above...

### FIRMWARE UPDATE

You can easily update the firmware inside the unit with dedicated macOS/Windows app available on

### www.bettermaker.com

But first, you need to switch the unit to firmware update mode. Simply hold the GAIN button while powering on with ON/STBY – the button will start to blink rapidly. Follow the instructions provided in the updater application.

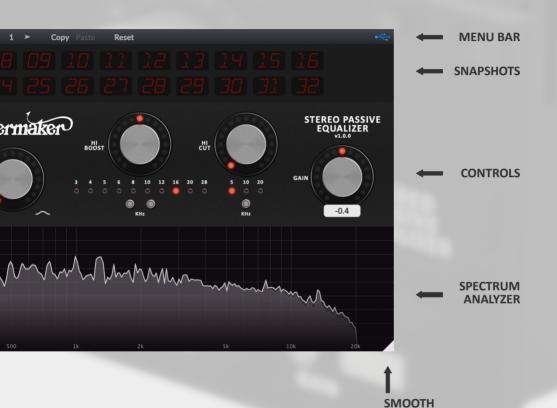
If you decide to abandon the firmware update procedure (not recommended if the process has already begun), hold the ON/STBY button for 5 seconds.

### STATE MEMORY

Internal non-volatile memory will restore all settings after sudden mains power loss. It will also remember last ON/Standby choice and provide power cycle counter and up-time clock.

### **DAW PLUGIN**

Bettermaker Stereo Passive Equalizer is delivered with hybrid DAW plugin (patent pending) that allows you to control and recall all settings of the hardware. Additionally provides high quality digital HPF, spectrum analyzer, session snapshots and other useful functions.



RESIZING CORNER

### SNAPSHOT EXPLAINED

When the Snapshot button is pressed, new panel will appear. Press the button again to hide it.

You can program up to 32 snapshots for SPE state that can be triggered by DAW's automation.

Use left and right arrows to navigate through snapshots.

Copy and Paste buttons are helpful if you want to use one snapshot as a starting point for another one.



# **DIGITAL HPF**

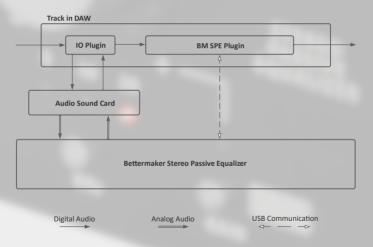
Under this section hides our famous 24dB/oct high-pass filter with the engage button below.

## PLUGIN CONNECTION WITH HARDWARE

If you want to use Bettermaker SPE's full potential, please follow the signal & data flow diagram showed bellow.

The connection with SPE plugin should be established automatically. Once the hardware locks with the software, USB icon on the menu bar turns blue.

In case of multiple SPE units connected, select correct one from the list.



### **TECHNICAL SPECIFICATION**

Maximum input level: +24 dBu (balanced with 48kΩ input impedance)

Maximum output level: +27 dBu (balanced with  $50\Omega + 50\Omega$  output impedance)

Nominal audio level: +4 dBu

Frequency response: 7 Hz – 30kHz (-0.5 dB, ISO-R40 sweep) Frequency flatness: +/- 0.2 dB (20Hz – 20kHz, ISO-R40 sweep)

Dynamic range: 101 dB (20kHz bandwidth, +24dBu)
THD+N ratio: 0.009 % (20kHz bandwidth, +4dBu, 1kHz)

THD ratio: 0.0025 % (+4dBu, 1kHz)

CMRR: > 70dB (20Hz - 20kHz, IEC 60268-3)

Crosstalk: > 88dB (20Hz - 20kHz, +18dBu, channel to channel)

Max LF boost: 15 dB (set to 100 Hz)

Max LF cut: 16 dB (set to 100 Hz)

Max HF boost: 18 dB (all frequencies)

Low boost/cut frequencies: 20, 30, 60, 100 Hz

High boost frequencies: 3, 4, 5, 6, 8, 10, 12, 16, 20, 28 kHz

High cut frequencies: 5, 10, 20 kHz

Control Resolution: 101 steps (Lo Boost, Lo Cut, Hi Boost, Bandwidth) & 34 steps (Hi Cut)

Output gain: +/- 8 dB (0.1 dB resolution)

Unit height: 2U Depth: 140 mm

AC power consumption: 15W (2W in standby, with included 100-240VAC power adapter)

Shipping weight & dimensions: 3kg, 60x30x20 cm

## SUPPORTED PLUGIN FORMATS

AAX Native, AU, VST3

# **PLUGIN MODIFIER KEYS**

AU

Fine Control Shift Set to default

Option

VST3

Fine Control

Shift

Set to default Command (Mac), Ctrl (Win)

AAX

Command (Mac), Ctrl (Win) Fine Control Set to default Option (Mac), Alt (Win)

# SUPPORTED OPERATING SYSTEMS

Mac

macOS 12 down to macOS 10.11

Intel, or Apple Silicon (except for AAX) architecture

PC

Windows 11 down to Windows 8

x64-compatible CPU

# **SYSTEM REQUIREMENTS**

Display resolution: 1440 × 900px or 1280 × 960px or higher

Memory: 2 GB RAM



www.bettermaker.com facebook.com/bettermaker instagram.com/bettermakerproaudio instagram.com/addictedtomusicstudios

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