

BADASS 2

MULTI-EFFECTS DISTORTION

user manual



Badass 2

USER MANUAL

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e-mail: contact@tekit-audio.com

web: <http://tekit-audio.com>

Overview

Thank you for choosing Badass 2, Tek'it Audio's multi-effects distortion. Badass can give to your sounds this little bad grain or destroy them completely with the help of distortion effects, filters, a pitch shifter, degrader, ring modulator and a compressor. Each effect can be used individually, but combined they become a powerful tool to distort your sound.

We hope you enjoy this software, and spices the music you created with it. Please, take the time to read this manual and learn how to exploit all the feature of Badass.

Feature highlights

- ▶ 15 Distortions and 11 Filters
- ▶ 9 different effects
- ▶ 3 types of modulation on each rotary controllers
- ▶ Selectable chaining path
- ▶ Each effect can be disabled
- ▶ Full MIDI automation support
- ▶ Easy MIDI learn on all parameters
- ▶ Works in mono or strereo
- ▶ Preset manager, rename, copy, save, load...
- ▶ Undo your changes to initial preset value
- ▶ One click preset randomize
- ▶ 128 Factory presets

Requirements

This software is a "Virtual Studio Technologies" plug-in (VST), he work only with VST 2 compatible host software or on other host through the use of a VST adapter. It requires a host that transmit transport and tempo messages to work properly.

System requirements:

Operating System

- Microsoft® Windows® 8, 7, XP (SP2 or later), or Vista™

CPU

- 1,5 GHz or higher with SSE2

Memory

- 512 Mb RAM or higher

Graphics

- 1024x768 32 bit

Audio

- Audio interface with ASIO driver support recommended and minimum 44kHz samples rates.

MIDI

- To use the automation a Host with automation features and for MIDI learn a MIDI interface and an external MIDI control device is required.

Installation

1. Simply run the installer program by double-clicking it, and follow the on-screen instructions.



2. Run your host software and load TA Badass 2. Consult your host documentation for information on how to do this.



Our un-installer keep your system clean, all the files are deleted and there are no entry left in your Windows registry.

Demo Version

The demo version of Badass 2 gives you full functionality, but the sound dropout regularly, a nagscreen will pop and the plugin need to be relaunched after ten minutes. Also you can't release commercial and non-commercial projects that use the demo.

To avoid this restrictions, you will need to purchase the full version. You can buy a license at <http://tekit-audio.com/shop/>

Using



Badass can be used in stereo or mono as an insert effect or as send/return effect.

Each effect can be activated/desactivated by a switch. Turning off an effect that you don't use reduce CPU use.

Badass is by nature extremely dependent from the signal entering, he can easily overload if you enter to loud. You can help you from the "In LED" on the left and the dB readout at the right of the main screen to adjust the input signal.

Control Types

While using Badass 2, you will find that many parameters have similar controls. Hovering your mouse over a control will bring up a tooltip with its name or description.



Knob

To turn a knob, click it and when drag upwards to move the knob to the right, drag downwards to move the knob to the left. For high precision control use Ctrl+Mouse. Double-click on it, reset it to the initial value of the preset.



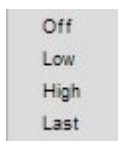
Slider

To move a slider, click it and when drag upwards to move the knob to the top, drag downwards to move the knob to the bottom. For high precision control use Ctrl+Mouse. Double-click on it, reset it to the initial value of the preset.



Switch

A two position switch, click on it to change the position.



Popup Menu

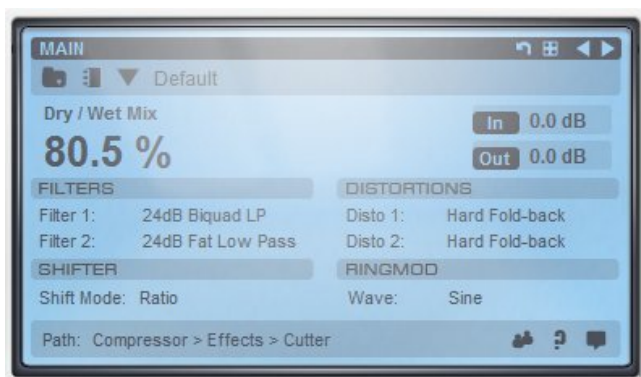
Appears on a left click or right-click on a text or an icon to select a value.



Peak LED

A LED indicator that light when the signal is overloaded. Click on it to switch it on or off.

Screen



To change a value on the screen, simply click on it.

Preset

Badass 2 comes with a default bank of 128 presets including the Badass original presets.



Preset Change

Changes the current preset, left to previous and right to next.



Undo All Changes

Undo all your changes to their initial preset value. If you change the preset before it does not work, because your changes are saved automatically when you switch to another preset.



Randomize

Randomize all parameters except Level and Pan.



Manage Preset And Bank

Open the preset manager popup menu.



Copy Preset

Copy the current preset to another preset or a range of presets.

Load Preset

Load a preset in (*.fxp) file format on the current preset.

Save Preset

Save the current preset in (*.fxp) file format.

Load Bank

Load an bank (*.fxb).

Save Bank

Save the bank of presets in a file (*.fxb).



Notes

Open a popup where you can write the preset author name, website and notes.



Preset Selector

Displays a popup menu with all the presets in the current bank. Click on one to select it as the current preset.

Current Preset Name

Display the name of the current preset. Click on it to rename the preset.

Path

Changes how the effect units are interconnected. For example you can put the compressor first or last in the chain.

Readout

Control Readout

Displays the name and the value of the control being used.

In / Out dB Readout

Displays the highest dB (VU) of the input and output channels, to help you adjust the mix and the level. Can be reseted on click.

Filters

Select one of the 11 different filter types, described in the table bellow.

Name	Description
24dB Fat Low Pass	24dB/octave low-pass filter with built in overdrive
24dB Biquad LP	24dB/octave Biquad low-pass filter
24dB Ladder LP	24dB/octave Ladder low-pass filter
24dB Digital LP	Similar to Ladder but sound more digital
12dB SV LP	12dB/octave State Variable low-pass filter
24dB SV LP	24dB/octave State Variable low-pass filter
36dB SV LP	36dB/octave State Variable low-pass filter
12dB SV High Pass	12dB/octave State Variable high-pass filter
24dB SV High Pass	24dB/octave State Variable high-pass filter
Biquad Band Pass	12dB/octave Biquad band-pass filter
SV Notch	12dB/octave State Variable notch filter

Distortions

Select one of the 15 different distortion types, described in the table below.

Name	Description
Hard Fold-back	Very Hard fold back effect. See the next distortion
Fold-back	Folds back the input signal after the clipping point
Soft Fold-back	Same as the previous but softer
Hard Clipper	Clip the signal beyond a certain threshold
Overdrive	Classic overdrive effect
Cos	Cosine distortion
Asin	Arcsine distortion
Tube	Tube distortion simulation
Squarer	Squares the input signal
Swinger	Create strange harmonics that sound electronic
Saturation	Saturate the input signal
W Folder	W shaper distortion
Hard W Folder	Same as the previous but harder
Bad Drive	Hard distortion with saturation and adds harmonics
Bad Shape	Shape distortion similar to a fuzzbox effect

Shifter

Select one of the 3 pitch shifter mode, Octave, Semitone or Ratio.

Ringmod

Select one of the 24 waveforms available to modulate the signal with the Ringmod.

Amp

In and Out LEDs

Lights up when the In or Out signal overload and a clipping may occur.

Limit

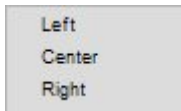
Lights up when the internal limiter goes into action. Used with the Level control you can create a soft limiter distortion. Use the switch to turn off the limiter.

Level

Controls the output gain within a range of -72 dB to +12 dB. If you turn the knob to high the sound can be distorted by the internal limiter.

Pan

Controls the panoramic, the knob show you the placement off your sound in the stereo field. Can be reset to center on double-click.



Right click on the knob will bring up popup menu to directly select the panoramic at common position.

Mix

Mix the effect with the original signal from dry (no effect) to wet (only the effect).

Phase

Invert the phase of the sound before the amplification stage.

TIPS: Apply a different effect on 2 voices with the same sound, and reverse the phase on one can produce interesting effect.

Bypass

Bypass all the internal processing. The sound out is the same as the sound in, leaving the sound unaltered.

Compressor

A compressor is an effect that reduces the dynamic range of an audio signal. In Badass 2 this is a soft-knee RMS compressor which gives a result similar to that of analog compressor.

Threshold

Changes the threshold on which the compressor starts to have an effect from -40 dB to 10 dB. When the threshold is low a larger portion of the signal is processed.

Attack

Controls how fast the compressor acts when it is decreasing gain to reach the level determined by the ratio from 0.01 ms to 600 ms.

Release

Controls how the compressor acts when it is increasing gain to the level determined by the ratio from 0 ms to 2000 ms.

Ratio

Controls the amount of gain reduction. With a ratio of 6:1 if the inputs level is 6 dB over the threshold the output signal will be 1 dB over the threshold.

Gain

Controls the gain correction after the compressor from -30 dB to 30 dB.

Filter 1 & 2

The filter 1 is a pre-filter this means it filters the signal at the start of the effect chain. The filter 2 is a post-filter this means it filters the signal at the end of the effect chain.

Cutoff

Changes the cutoff point of the filter. For low-pass filters, this means that frequencies above the cutoff point are attenuated. For high-pass filters, this means that frequencies lower than the cutoff point are attenuated. For a band-pass filter, this means that frequencies outside a certain range upper and lower than the cutoff point are attenuated.

Reso

Controls the resonance of the filter. The frequencies around the cutoff frequency are raised.

Boost

Freq

Changes the frequency around which the boost is applied, in a range of 35 Hz to 2000 Hz from left to far right.

Boost

Changes the level of the boost from 0% to 100%.

Shifter

Shift

Change the amount of pitch shifting by +/- 12 semitones, octaves or ratio. The center position is at 0, turn it clockwise to make the shift higher and anti-clockwise to make the shift lower.

Amt

Changes the mix level of the effect. Turning this knob clockwise increase the intensity of the effect.

Ringmod

A ring modulator produces mettalic bell-like sounds, by multipling the incoming signal with a sine-wave, this resulting in a ringing sound. "Ring" refers to the arrangement of diodes originally used to implement this effect in analog circuits. In Badass 2 the ring modulator go beyond the original effect with 24 waveforms to modulate the signal.

Freq

Changes the frequency (pitch) of the effect, from 30Hz on the left to 4000Hz on the right.

Ring

Changes the mix level of the ring modulator. Turning this knob clockwise increase the intensity of the effect.

Degrad

Freq

Changes the re-sampling frequency, 24 KHz to 4400 Hz from left to far right.

Bitrate

Changes the bit rates from 17 bits to 2 bits.

Disto 1 & 2

Drive

Drives the input signal by 0 dB to 30db from left to right.

Post

Controls the post gain from -30 dB to 0 dB.

Cut

Frequency switches

Attenuates frequencies within a range around the cutoff frequency. There are nine cutoff frequencies available, 50Hz, 450Hz and 800Hz, 1.2KHz, 2,6KHz 4KHz, 6KHz, 8KHz, 10KHz. Press their respective switch to activate them.

Bypass

Bypass the cut effect.

MODULATION

Each rotary knob come with a modulation system give you the choice to use an Envelope Follower, a Multi-Stage Envelope Generator (MSEG) or an Low Frequency Oscillator (LFO). To open the Modulation popup, right click on a knob to open the additional control pop-up menu and click on Modulation.



Modulation Type

Changes the type of modulation to 'None', 'Env Follower', 'MSEG' or 'LFO'.

Mode

Changes the playback mode of the modulation from Free Run, Note Gate (retrigger on note) or Host Sync (Sync to the host BPM).

Beat

Then in Host Sync mode speed up or slow down the speed of modulation, by dividing the clock from 1/16 of bar to 16.

Envelope Follower

The envelope follower extract the envelope curve from the input signal.



The Attack and Decay controls how quickly the envelope follower responds.

Attack

Controls the attack time from 20 to 600 milliseconds.

Decay

Controls the decay time from 20 to 600 milliseconds.

Depth

Controls the depth of the envelope from -100% to 100%. The center position is at 0, turn it clockwise to make the depth higher and anti-clockwise to make the depth lower and negative from 0 to -100%.

MSEG

The Multi-Stage Envelope Generator (MSEG) can use 32 stages with looping and One-Shot function.



The Stages

Stage times and level are adjusted by dragging the red box. You can use a finer mouse editing resolution by pressing SHIFT(fine) or CTRL(ultra-fine) keys.

Shapes	>
Sustain Stage	>
Repeat Stage	>
Active Stages	>
Box Size	>
Zoom	>
Insert Stage	
Delete Stage	
Adjust Total Time	>
Close	

Click between the stage markers to open the MSEG options popup.

Shapes

Select on of the 14 shapes available for the selected stage.
Available shapes: Linear, Exp, Inv.Exp, Exp2, Inv.Exp2, Root, Inv.Root, Exp.Root, Inv.Exp.Root, S_Crv, Inv.S_Crv, S_Crv2, Inv.S_Crv2, Step.

Sustain Stage

Defines which stage is the Sustain stage. If both Sustain and Repeat are 'OFF' then the envelope will play through to the end when triggered (One-Shot).

Repeat Stage

Defines which stage to repeat from when the Sustain stage is reached. This allows you to create a looping section of the envelope when 'Held'. If Sustain stage is OFF and Repeat From is set, then the envelope will repeat from the End. If Repeat From Stage is 'Start' and Sustain Stage is 'OFF' then the whole envelope will repeat while 'Held'.

Active Stages

Select the number of active stages from 1 to 32.

Box Size

Variable Box sizes to suit your display resolution.

Zoom

Zoom from 100% to 1000% for precise editing.

Insert Stage

Insert a new stage before the selected stage.

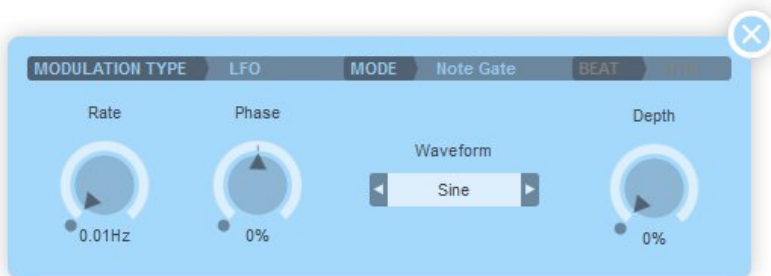
Delete Stage

Deletes the selected stage.

Adjust Total Time

Adjust the total envelope time from 10% to 1000%.

LFO



Rate

Controls the speed of the LFO from 0.01Hz to 30Hz then not in Host Sync mode.

Phase

Controls the phase of the oscillator. Phase acts as Pulse Width for pulse waveforms and as Slew rate (slide) for Rnd2 waveform.

Waveform

Select one of the 24 waveforms available.

Depth

Controls the depth of modulation applied from 0% to 100%

MIDI

Badass 2 have integrated MIDI learn and full automation on all parameters.

Integrated MIDI learn

All controls can be controlled by an external MIDI controller easily, simply right click on the parameters you want to control and the Learn popup menu appear.



Learn

Click on Learn, move a control on your MIDI device and it will automatically assigned.



UnLearn

Click on UnLearn will clear the controller.

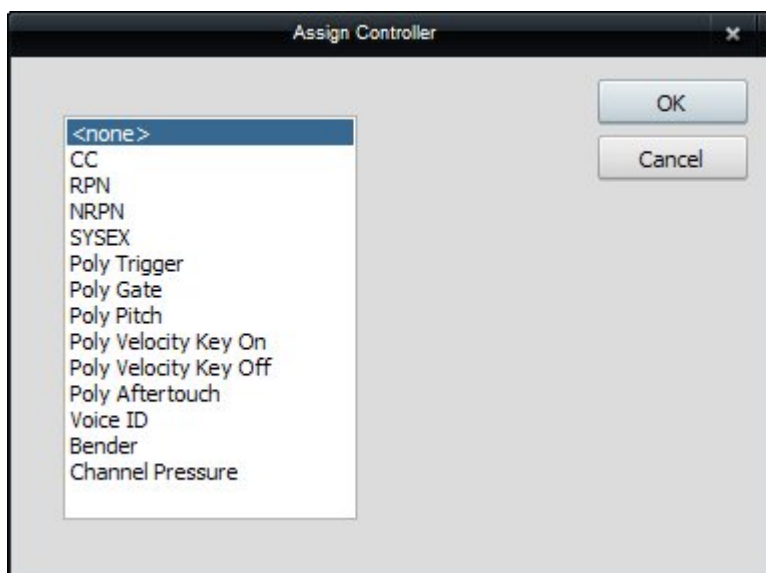


Some hosts (like FL Studio) filters MIDI CC messages coming from MIDI controller, integrated MIDI learn can't work properly in such hosts.

Edit...

Click on Edit will open the Assign Controller dialog.

You can change manually the MIDI controllers using 7-bit MIDI Continuous Controller or High resolution 14-bit MIDI NRPN and RPN.



Automation

Each controls can be automated using your host automation features.

Consult your host documentation for information on how to do this.

Updates and Support



Updates will be made available online at

<http://tekit-audio.com/badass/>

Check the related news for detailed information on each updates.



Additionally you can follow us on Twitter for instant updates and news at

<http://twitter.com/TekitAudio>



For support, ideas, complaints, testimonials, sound demo, presets and anything you feel is worth sharing, please use our contact form at <http://tekit-audio.com/contact-us/> .

If you prefer, you can contact our team directly by email at contact@tekit-audio.com

Clothing And Accessories

Show your support to Tek'it Audio !



Hoodie, T-Shirt, Girlie Shirt, Stickers, Hooded Jacket and bag availables !

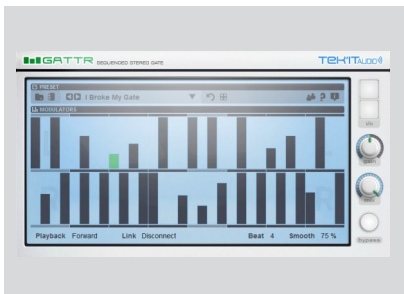
International:

<http://tekit-audio.spreadshirt.com/>

Europe:

<http://tekit-audio.spreadshirt.fr/>

Other Products



GattR
Sequenced stereo gate



Genobazz 2
Monophonic bass synthesizer



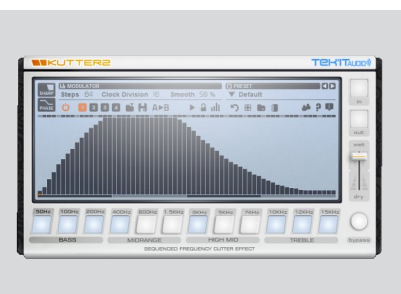
Genobazz R
Monophonic bass synthesizer



Genobazz Pro
Monophonic synthesizer



Arp-EG classic
Classic MIDI arpeggiator



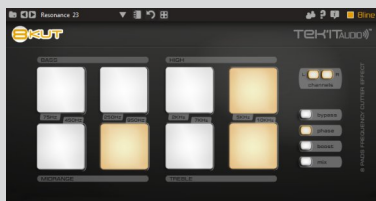
Kutter 2
Sequenced frequency cutter



8eqf
8 band semi-parametric equalizer



8eqp
8 band parametric equalizer



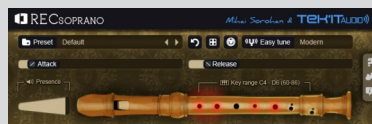
8kut
8 pads frequency cutter



APC
DIY punk console synthesizer



DubSiren
Dub siren synthesizer



RECSoprano
Soprano recorder

Credits

Code, design and conception:

Michaël Dubois

Additional Softwares:

Chris Kerry

Daz Disley

Jeff McClintock

Jordan Russell

Peter Schoffhauzer

GUI Design:

Michaël Dubois

Preset Design:

John Finter

Michaël Dubois

Software Test:

Justin O'Quinn

Michaël Dubois

User Manual:

Michaël Dubois

Special Thanks to:

BitGlitch

SaTRiP [Polyforme Record.]

SoundCloud.com

Pascal Rinaldi [www.pascalrinaldi.ch]

Nicholas Pope

Everyone else who has contributed to the development in any way.

Create, play !

