

ReelBus 4 / ReelBus iOS
Installation and user manual

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2 Setting up the plugin for first use

2.1 Installation on desktop (Windows, macOS)

Download and install the freely-available trial/evaluation versions of the plugins. This will allow you to test the plugins prior to making any purchase decisions. trial/evaluation versions can be downloaded from the ToneBoosters.com website. Trial/evaluation plugins may have one or more of the following limitations:

- Trial/evaluation versions will not store nor save settings.
- Trial/evaluation versions will show a reminder to purchase a license.

2.1.1 Installing the trial/evaluation plugins

- The plugins will be installed in the locations given in the table below.

Operating system	Plugin folder(s)

Windows*	`C:\Program Files\Common Files\VST2\ToneBoosters\`
	`C:\Program Files\Common Files\VST3\ToneBoosters\`
	`C:\Program Files\Common Files\Avid\Audio\Plug-Ins\ToneBoosters\`

Mac OS	`/Library/Audio/Plug-Ins/Components/`
	`/Library/Audio/Plug-Ins/VST/`
	`/Library/Audio/Plug-Ins/VST3/`
	`/Library/Application Support/Avid/Audio/Plug-Ins/ToneBoosters/`

* If 32bit plugins are installed on a 64-bit version of Windows, the path will start with `C:\Program Files (x86)\...`

2.1.2 System requirements (Windows)

- Windows 7 SP1 or higher
- 32 or 64 bit host program that supports VST plugins

2.1.3 System requirements (mac OS)

- macOS 10.10 or higher
- 64-bit host program that supports 64-bit VST or Audio Unit plugins

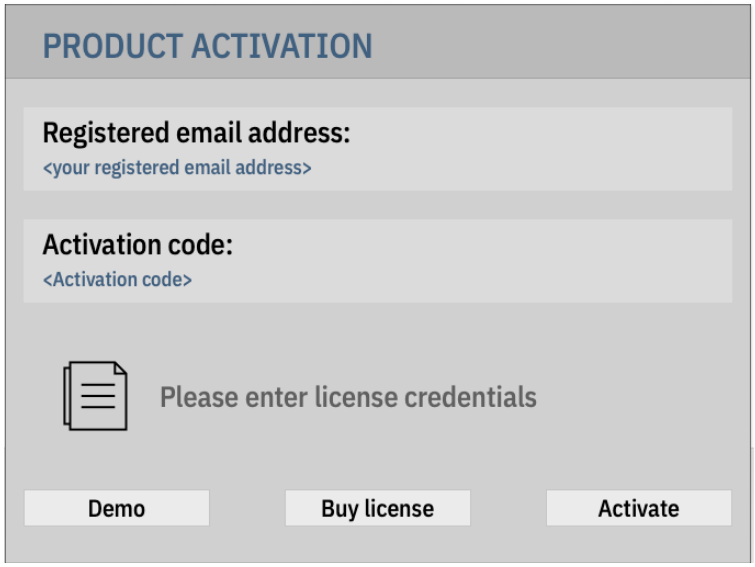
2.1.4 Configuring your host program

After installation of the trial/evaluation plugins, you may have to inform your host program about the presence of new plugins. Most host programs require you to provide the folder where plugins are installed.

- Consult your host program manual how to configure plugin folders. On Windows, make sure you add the following VST scan path to your host program settings:
  `C:\Program Files\Common Files\VST2\`
- Refresh and/or re-start your host program to allow it to scan for new plugins on your computer.

2.1.5 Activating a license

To register a plugin you can acquire an activation code in the ToneBoosters online store. The activation code is sent by email after purchase and consists of a long alphanumerical string that should be copied into the designated field when opening a plugin from within a host program. The user interface that has the entry field for your email and an activation code is shown in the figure below. Make sure that the email address entered is the same as the email address used for purchasing the plugin.



After entering your email and the activation code in the designated fields, click on 'Activate' to activate your license. Alternatively, without a valid activation code, you can try the plugin in demo mode.

2.1.6 Installing plugin updates

Simply download and run a more recent plugin installer from www.toneboosters.com to update your plugins.

2.2 Installing on iPad, iPhone or iOS device

2.2.1 Installation

Follow the instructions from the Apple App store to install the app on your iOS device. The following versions will be installed:

- Stand-alone app, compatible with inter-app audio (IAA) protocol
- Audio Unit v3 (AUv3) app extension

2.2.2 System requirements for iOS devices

- iPad or iPhone; iPad highly recommended
- iPadOS or iOS version 11.0 or up
- Host program compatible with AUv3 or inter-app audio (IAA) applications

2.3 Multi-channel and external side chain support

Some plugins support multi-channel audio input, possibly including 5.1, 7.1, and Dolby Atmos channel-based formats. Plugins may also provide support for an external side chain input. In general, the following restrictions apply for the various plugin formats:

- VST: only mono or stereo input; no external side chain input
- VST3: can typically run up to 16 channels, and can have external side chain inputs
- AAX: can typically run up to 16 channels, and can have external side chain inputs
- Audio Unit: can typically run up to 16 channels, and can have external side chain inputs
- iOS app including IAA support: only mono or stereo input; no external side chain input
- iOS AUv3: mono or stereo input, with external side chain support.



Not all plugins will support multi-channel audio or external side chain input. Please refer to the web page of the respective ToneBoosters product to see what configurations are supported. Please refer to your host program's manual to see what channel and external side chain input configurations are supported by the host program.

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3 User interface common controls

3.1.1 Controlling Knobs and sliders

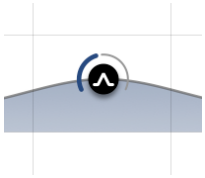
The various knobs and sliders on the graphical user interfaces (GUIs) of the plugins can be controlled by left-mouse clicks (for switches) or left-mouse drags (for rotary controls and sliders). The following key combinations apply that modify the behavior of the GUI elements:

3.1.2 Sliders



- Drag up/down or left/right to change the value
- Hold 'Shift' for fine-control micro edits
- Double click to reset to the default value
- Click on the numeric value to allow manual entry of values trough the keyboard.

3.1.3 Draggers / nodes



- Drag left/right or up/down to change the position and value
- Hold 'Shift' for fine-control micro edits
- Double click to reset to the default position
- Use mouse wheel to change the rotary value (for example the Q value)
- Hold 'Control' to allow for vertical movement only
- Hold 'Alt' to allow for horizontal movement only
- Left mouse click to activate (if supported)
- Right mouse click to de-activate (if supported)

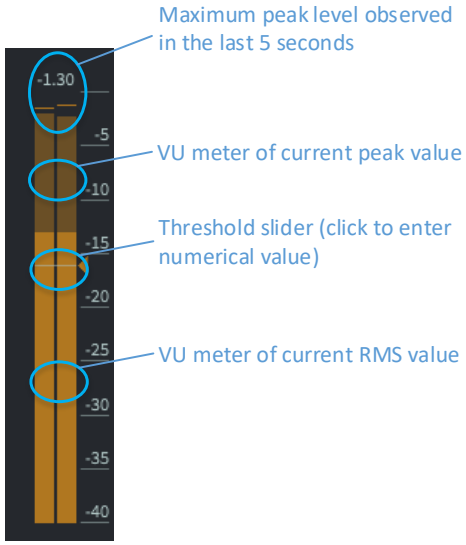
3.1.4 Lasso

Some plugins may provide a lasso function to select multiple draggers/nodes and move them all simultaneously. To activate the lasso, drag around the nodes you want to capture. To release the lasso, click once outside the lasso range.

3.1.5 VU meters

Plugins equipped with VU meters will typically show both peak and RMS levels in the same meter. The VU meters will show two segments with slightly different colors. The lower segment is the RMS (root-mean-square) value; the peak value is shown by the upper segment. Peak hold values will be shown numerically and by two horizontal lines in the meter. RMS levels are unweighted and computed with a 400-ms time constant.

Click on the VU meter to reset the peak hold value (if supported).



3.1.6 Tool bar

Most plugins have a common tool bar at the top of the user interface.

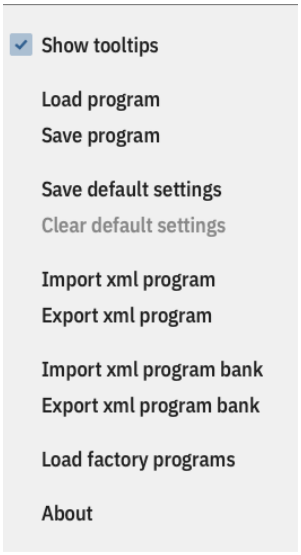


The tool bar shows the plugin version number, and will also indicate if a newer version is available. Next to the version number is the hamburger menu, used to save and load settings. The second row contains the following tools:

- **Program selector**: click to open the list of programs, or double click to edit the current program name. When first opened, all programs in the bank will come as presets which you can change individually.
- **A/B toggle** to quickly toggle between two configurations (A and B). This toggle button can be used as follows:
  - Click on the A/B toggle switch to activate configuration A.
  - Modify any plugin parameter that you would like to be set for configuration A.
  - Click on the A/B toggle switch to activate configuration B.
  - Modify any plugin parameter that you would like to be changed for configuration B.
  - You can now quickly switch between configurations A and B by clicking on the A/B toggle switch.
- **Undo**. This will undo previous changes.
- **Redo**. This will redo changes that were undone previously.
- **Copy**. This will copy all current parameter settings to the internal clipboard.
- **Paste**. This will copy the settings in the clipboard to all parameter settings.
- **Scale factor** for the user interface
  - Click to open a drop-down menu with commonly used scale factor settings;
  - Double click to enter a numerical value.
- **Color theme** for the user interface. Choose any of the supplied color themes.

3.1.7 Hamburger menu

The hamburger menu opens up a drop-down menu with various options.



- **Show tooltips**: enable or disable tooltips that will appear when the mouse is moved to a control and held on that position for a certain amount of time.
- **Load / save program**: open the program manager to load or save a program. The program manager includes options to rename, categorize, delete and sort programs.
- **Save default settings**: save all current programs, user interface size and color theme as default for new instances of this plugin.
- **Clear default settings**: delete the default settings; this will cause new instances to open with factory settings.
- **Import / export xml program**: import or export a program (as xml file) using the native file browser.
- **Import / export xml program bank**: import or export all programs (as single xml file) using the native file browser.
- **Load factory programs**: reset all programs to factory defaults.
- **About**: show user, computer, and audio configuration information.

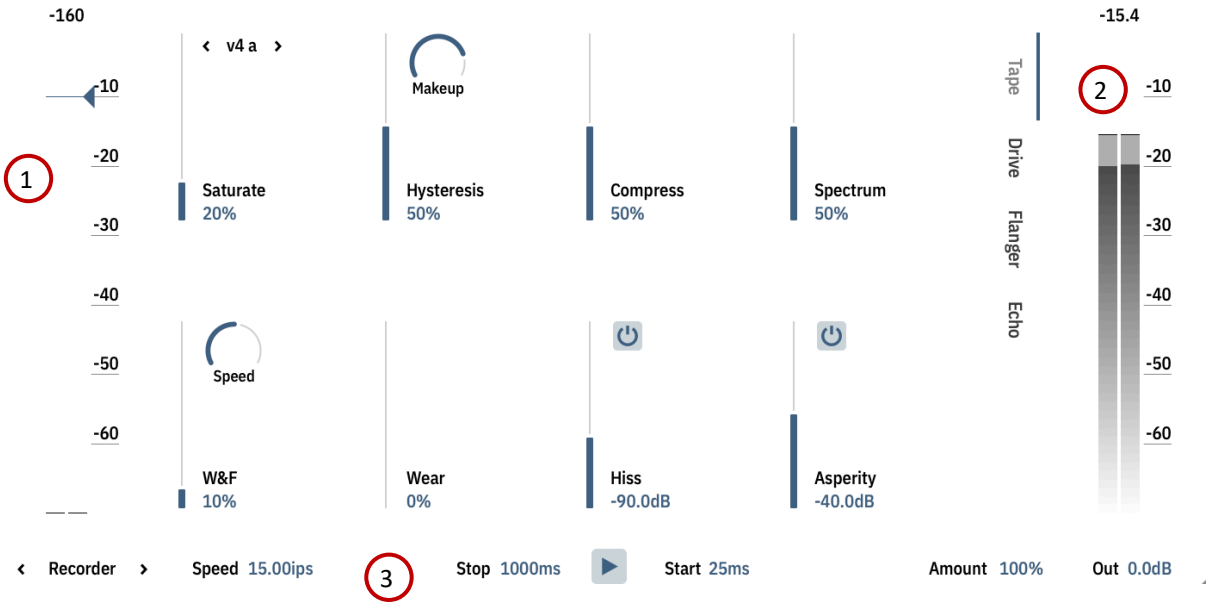


Programs and program banks are imported and exported as xml files. On iOS, not all options are available due to sandbox restrictions of the Apple iOS ecosystem. XML files are intended to be cross-platform compatible, e.g. a program (bank) exported on iOS can be imported into the desktop version of the same plugin and vice versa.

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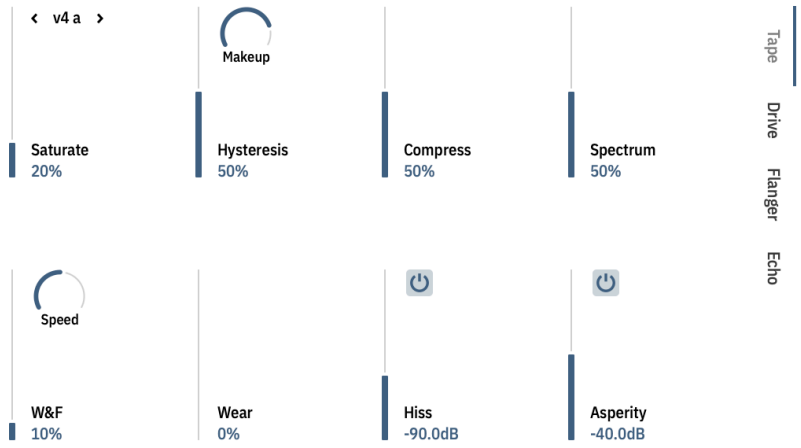
4 TB ReelBus 4 / ReelBus iOS

4.1 Overview



Control	Area	Purpose
Input VU meter	1	Displays input VU RMS level, peak value, and peak hold value. The needle on the meter sets the effective "0dB" recording level for the tape simulator. Drag the needle to adjust.
Mode	1	Select the plugin mode: • Recorder: in this mode, ReelBus acts as tape recorder simulator. All input signals are processed by the tape simulation effect and fed to the output of the plugin. • Send FX: in this mode, ReelBus only produces echo and flanging output contributions, without outputting the original input. This mode is suitable for using ReelBus as bus effect to produce tape echo and flanging. • Insert FX: in this mode, ReelBus produces the original (unprocessed) input as output, plus any flange and echo effects. This mode is suitable for using ReelBus as insert effect to generate tape echo and flanging. • Master mode: in this mode, ReelBus works as a master bus tape recorder, with a set of macro edit controls.
Output VU meter	2	Display the output VU RMS level, peak value and peak hold value. Click the meter to reset the peak hold values.
Out	2	Set the output gain in dB.
Speed	3	Sets the tape speed in inches per second (IPS).
Amount	3	Set the amount of processing between 0 and 100%.
Stop	3	Set the tape stop time in milliseconds
Start	3	Set the tape start time in milliseconds
Play	3	Start or stop the tape. This will introduce a tape start/stop simulation based on the Start and Stop times.
HQ	3	Enable high quality (HQ) mode with higher oversampling factors and extremely high-quality anti-aliasing filters.

4.1.1 Tape tab



Control	Purpose
Sature	Sets the amount of tape saturation between 0 and 100%. Saturation will be mostly effective for input levels at or beyond the drive threshold.
Saturate mode	Allows to select between a variety of tape saturation modes obtained from TB Ferox, TB ReelBus v2 and TB ReelBus v3, and new modes only available in ReelBus v4.
Hysteresis	Sets the amount of tape hysteresis between 0 and 100%. Hysteresis will be mostly effective for input levels at or beyond the drive threshold and mostly for high frequency signals.
Hysteresis makeup	Hysteresis mostly affects high-frequency content and can therefore modify the perceived timbre. The makeup control allows to vary the amount of spectral makeup to compensate for the changes in timbre due to hysteresis.
Compress	Sets the amount of tape compression between 0 and 100%.
Spectrum	Sets the spectral changes introduced by tape and tape heads between 0 and 100%.
W&F	Sets the amount of wow and flutter between 0 and 100%.
W&F speed	Adjusts the W&F speed relatively to the tape speed. In other words, the speed of W&F is determined the tape speed, and the W&F speed setting.
Wear	Sets the amount of tape wear between 0 and 100%.
Hiss	Sets the amount of tape hiss. Use the power button to enable or disable hiss simulation.
Asperity	Sets the amount of asperity noise. Use the power button to enable or disable the asperity noise simulation.

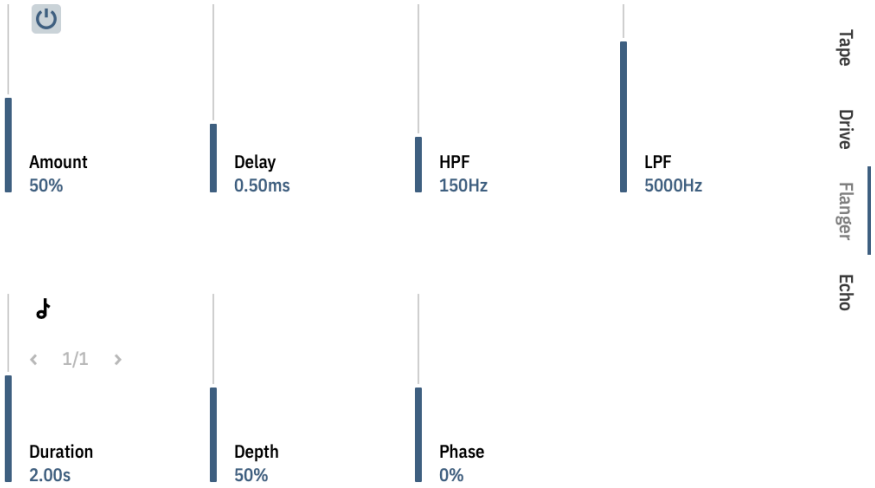
4.1.2 Drive tab

The drive tab features a ‘drive-eq’ which allows you to drive certain frequencies harder into tape saturation than others. Drag the nodes to determine the pre-emphasis equalization prior to running the tape simulation. An inverse EQ will automatically be applied at the output of the tape saturation. Hence you won’t perceive timbre changes as you would with an equalizer, especially if the saturation and hysteresis controls are set to low values.

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4.1.3 Flanger tab

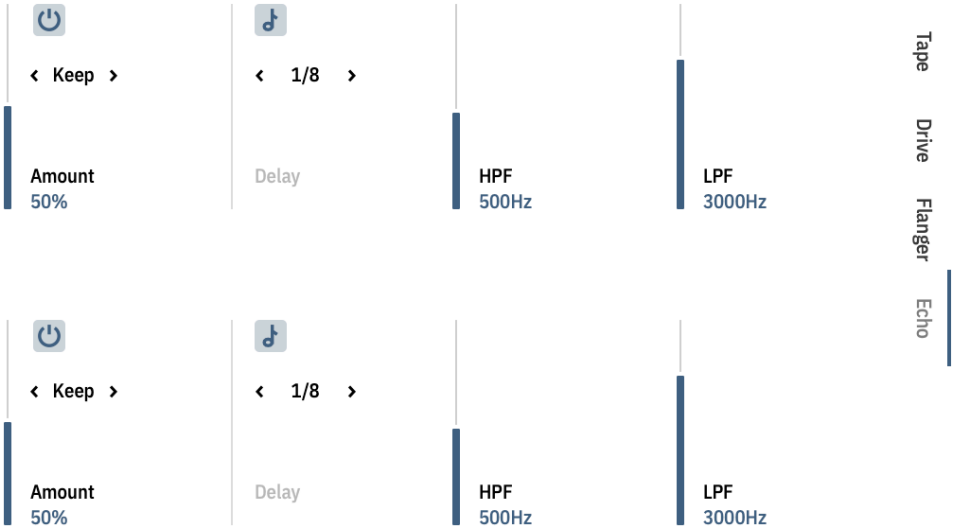
The flanger tab provides controls for LFO-controlled tape flanging effects.



Control	Purpose
Amount	Sets the amount of tape flanging between 0 and 100%. High values may cause self oscillation.
Delay	Sets the flanger delay in milliseconds.
HPF	Sets the high-pass cut-off frequency for the flanging effect
LPF	Sets the low-pass cut-off frequency for the flanging effect
Duration	Sets the LFO cycle duration to modulate the flanger delay. The duration can be specified in bars or in milliseconds. Beat-synced LFOs require a host program that can communicate tempo information to plugins.
Depth	Sets the LFO depth to modulate the flanger delay.
Phase	Sets the LFO phase to modulate the flanger delay.

4.1.4 Echo tab

The echo tab provides two independently-modifiable tape echo modules.

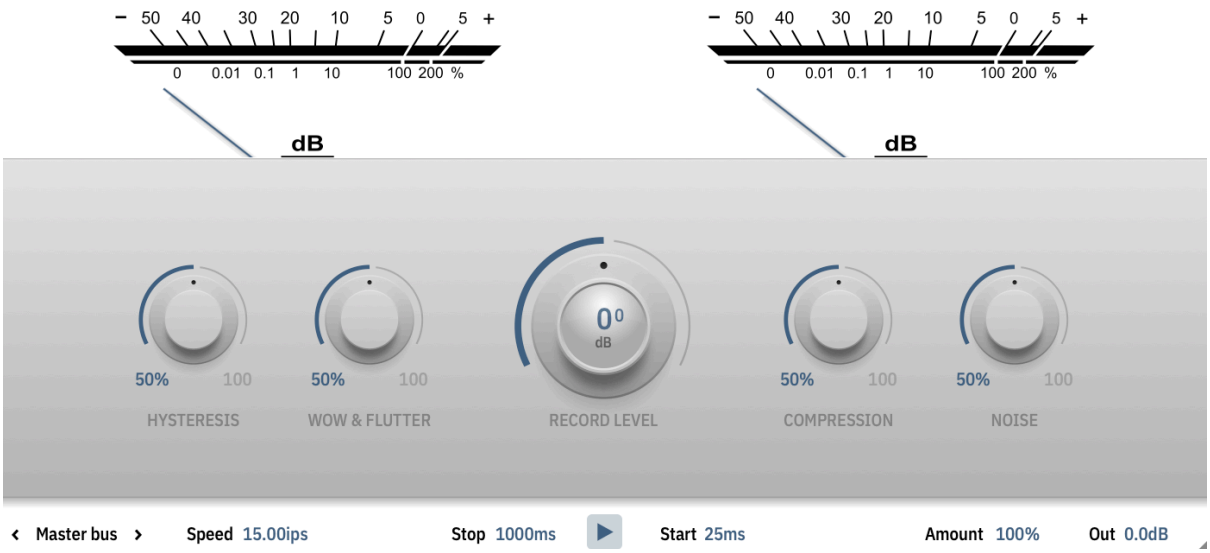


Control	Purpose
Amount	Sets the echo feedback level between 0 and 100%.
Mode	Sets the spatial feedback mode. This mode is only useful for an even number of input and output channels. • Keep: do not modify any spatial attributes of echos • Left: only send echos to the left channel; the input for the echo is a downmix of all inputs • Right: only send echos to the right channel; the input for the echo is a downmix of all inputs • Rot L: rotate echos spatially starting at the left channel and rotate -90 degrees with every subsequent echo. • Rot R: rotate echo spatially starting at the right channel and rotate +90 degrees with every subsequent echo. • Sol L: only send echos to the left channel; the input for the echo is the same (L) channel. • Sol R: only send echos to the right channel; the input for the echo is the same (R) channel.
Delay	Sets the echo delay. The delay can either be specified in bars or in milliseconds.
HPF	Sets the echo high-pass cut-off frequency.
LPF	Sets the echo low-pass cut-off frequency.

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4.2 Master bus mode

In master bus mode, the user interface shows 5 sliders and a number of analog VU meters equal to the number of input channels. This mode is particularly effective to get that warming tape effect on your tracks or busses without having to go in and change many parameters. For this purpose, five macro parameters are provided, each of which control a multitude of the internal parameters to adjust the tape simulation effect.



- **Hysteresis**: set the master bus hysteresis level.
- **Wow and flutter**: set the master bus wow and flutter amount.
- **Record level**: adjust the signal level going into the tape simulator.
- **Compression**: set the amount of tape compression.
- **Noise**: set the amount of tape hiss and asperity noise.

The master bus mode works independently from the other modes, e.g. it will not affect settings in any of the alternative modes.

The effect of the master bus mode parameters (hysteresis, wow and flutter, etc) will depend on the tape speed. A higher tape speed will generally produce higher-quality output; a lower tape speed will produce a warmer, more vintage sound.