magnetite
MAGNETIC TAPE RECORDER

About the Magnetite Plug-in

Magnetic tape recorder emulation

Magnetite is our homage to the sound of magnetitc tape recorders. Simply dial in the desired amount of saturation, drive and warmth using the recording gain knob and Magnetite will add just the analog tape sonics that you're looking for to your mixes.

Huge drums, distorted loops, saturated vocals, you name it - let Magnetite breathe new life into your sources.

We recommend using Magnetite as the first insert of your chain, especially if you're going to use it for adding analog coloration. You can of course put it into different spots if you're going for creative effects.

Plugin Activation & System Requirements

Black Rooster Audio plug-ins are equipped with a straightforward and easy to use challenge-response activation system. We did our best to make sure our system works well for both online and offline users. By supporting USB key activation, mobile use is supported and just as easy as permanent activation of your computer's hard disk.

For detailed information about the activation process and the current system requirements of our plug-ins please refer to:

blackroosteraudio.com/faq.html

Key features

Authentic sound

We put a lot of thought and work into emulating all the sonic aspects associated with analog tape: Class A recording and playback amplifiers, tape response and saturation, NAB pre- and de-emphasis EQs, the sonic effect of different tape speeds and bias levels, hiss and hum - it's all there. We also added an adjustable wow and flutter feature that emulates frequency modulation (FM) due to motor speed fluctuations.

SSE2 optimized code

DSP operations are pipe-lined using the SSE2 instruction set. This ensures highest possible performance operation despite very complex computations.

Auto-adjusted oversampling for maximum audio transparency

Aliasing artifacts are efficiently attenuated using a low latency linear phase Dolph-Chebyshev poly-phase design. The oversampling is auto adjusted to your session's sample rate to save valuable CPU power while offering the most transparent sound possible.

HighDPI / Retina support

All our plug-Ins support high pixel density on Mac OSX and Windows to bring you the most enjoyable user experience on high DPI displays. Please refer to your manual to find whether your DAW is HighDPI capable if you're working on Windows.

Controls & User Interface

» Power
Engages or bypasses the processing altogether.

» Recording Level
Controls the gain applied to the incoming signal between -24..24 dB before it is send to tape. Adding more gain to your signal will give you more saturation while lower levels produce a cleaner sound. Drag the knob using your right mouse button to link it inversely to the Playback level knob so you can adjust the amount of desired harmonic distortion without affecting the volume.

» Playback Level
Controls the gain applied the signal played back from tape between -24..24 dB. The class A playback amplifier also adds a very subtle coloration at higher levels. Drag the knob using your right mouse button to link it inversely to the Recording level knob so you can adjust the amount of desired harmonic distortion without affecting the volume.

» Tape Type
Lets you choose between three different tape types (Black, Blue and Red). They all differ subtly in their frequency response and saturation characteristis: Black will give you the biggest head bump (LF emphasis) while Blue puts a little more emphasis on the HF range, Red gives you the flattest response.

» Noise
En- or disables the emulation of tape hiss and 60 Hz hum.

» Bias
Toggles between three bias levels (Normal, +3 dB and +5 dB). In the real world, bias is a non-audible high frequency signal that is added to the audio signal before sending it to tape in order to reduce the tapes inherent crossover distortion. Bias yields a tradeoff between linearity and headroom. Using higher bias levels results in more HF attenuation and different saturation characteristics, while using normal will give you the most balanced behavior.
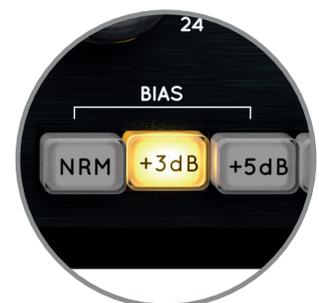
Controls & User Interface

» Tape speed
Use this button to select between 7.5 and 15 ips (inches per second) recording speeds. 15 ips gives a flatter response but less low end while at 7.5 ips the HF range is a little more emphasized and the LF bump range is shifted and more pronounced.

» Wow and Flutter
This knob lets you adjust the amount of emulated playback motor speed fluctuations and their associated FM. Turn this knob all the way counter clockwise (0) to turn off wow and flutter altogether. Turning the way fully clockwise yields as much as 0.5% fluctuation. Duplicate your track with Magnetite applied and flip the phase on one of the tacks for a 70s phasing effect.

» VU Meter L / VU Meter R
Monitors the input or output VU level of the left and right channels according to the Meter L/R settings. In mono instances both meters display the same (mono) VU level, putting Meter L/R at different positions allows for monitoring the mono input and output level at once. At readout of -14 dB corresponds to a VU level of 0 dBu.

» Meter L / Meter R
These switches allow you to select between post recording amp (I) and post playback amp (O) VU metering. Drag any of the two switches using your right mouse button to control them in a linked fashion.
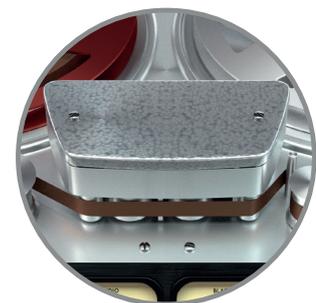
» Tape Head (reels animation mode)
Clicking on the tape head brigs up a menu that lets you select the reels animation mode between synchronized (with host transport), continuous and disabled. This feature is only available in expanded view. *This is a global setting that affects all running Magnetite instances.*

» Magnetite Badge (collapse/expand view)
Click on the Magnetite badge to hide or show upper tape reel and recording head area, which allows for putting the GUI into collapsed or expanded mode. *This is a global setting that affects all running Magnetite instances.*

GUI Size

In the GUI size menu you can select your preferred GUI scaling from a list of four settings, if the default mode (Normal) is too big or too small for your taste. Please note that the GUI size setting is a global preference that affects all Black Rooster Audio plug-ins installed on your system.
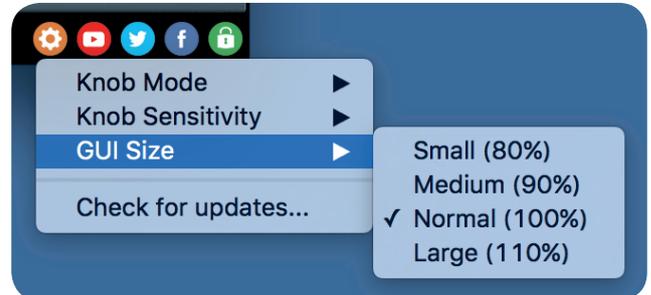
Check for updates

Click the Check for updates entry to see if the plug-ins installed on your system are up-to-date. This function requires internet access.

Knob behaviour & keyboard shortcuts

Use the plug-ins settings menu to select your preferred knob mode globally, i.e. all of our plug-ins share the same setting among all DAW applications. Choose between „Host Setting", „Circular", „Relative Circular" and „Linear":

• By default the knob mode is set to „Host Setting" which means that the knob mode is dictated by the DAW application. Some VST hosts allow to change the knob mode setting in their preference menu. Our plug-ins will respect the host knob mode in that setting.
• In the „Circular" or „Relative Circular" modes knobs will react to circular mouse gestures and you have to drag your mouse in clockwise or counter-clockwise direction to change a knob's value.
• In the „Linear" mode you have to drag your mouse up or down when selecting a knob to change its value.

Use the knob sensitivity menu to adjust the knob sensitivity to taste. This function is only available in linear mode.

All of our plugins support the following keyboard shortcuts

AU Hosts on Mac OS
Alt + Click - Reset control to its default value
Shift + Drag - Fine control
Shift + Mousewheel - Fine control

VST Hosts on Mac OS
CMD + Click - Reset control to its default value
Shift + Drag - Fine control (only a applicable in linear knob mode)
Shift + Mousewheel - Fine control

VST Hosts on Windows
Ctrl + Click - Reset control to its default value
Shift + Drag - Fine control (only a applicable in linear knob mode)
Shift + Mousewheel - Fine control