

Mac OS X • Windows • AAX/Audio Suite/Audio Units/VST • 64 bit

Mikron Compressor Manual

112dB 

QUICK INDEX



INTRODUCING...

Mikron Compressor is a compressor that was designed to have character and warmth, but can also sound very transparent when needed. Like its big brother Big Blue Compressor this is a modern compressor with vintage characteristics. Modern features from the digital world, like a Look Ahead function (Mikron compressor “looks ahead in time” where peaks occur, so its adjustments will not come to late), are paired with qualities from the analog world, such as the saturation of transients found in tube compressors.

The basic concept of a compressor is simple. It reduces the level of an audio signal when it exceeds a certain user-defined threshold. However by altering the dynamic range of an audio signal, it can make material also sound more coherent and its nuances much easier to hear. When properly set up, it can be used to tighten up mixes and make audio more up front, punchy, and solid.

By altering the dynamic range compressors inevitably introduce some distortion. In normal circumstances you would like to prevent this. And under the hood of Mikron Compressor there’s a lot going on what does just that: giving you a clean sound. But sometimes it is interesting to do just the opposite: to maximize this distortion to create a certain desired effect. For example: a bit too long attack that lets some transients pass through can drums make punchier. The pumping and breathing that comes with slower release times can make a rhythm section sound more “energetic”. Especially when used in combination with Mikron Compressor’s choke function, that was designed to emulate the sound of vintage tube compressors. If you want the signal to sound warmer and fatter, you can add some extra “vintage warmth” with the Choke knob. Or you can make the sound really dirty, and use the Mix knob for some New York compression, to let your drums really rock.

THE MIKRON SERIES

The 112dB Mikron series is all about simplicity. We believe that too many features can stand in the way of the creative process. Simply said: more features also means more tweaking and having to delve into all kind of technical details. And that often distracts you from what it’s all about: creating music. You really don’t need that many knobs to get a great sound. The effect pedals for guitars are a perfect example of this. Their limited functionality is more than compensated by their fun to use. Or do you really believe that Jimi Hendrix and Kurt Cobain would have made better music if they just had these few extra knobs on their stompboxes? Limitations often inspire creativity instead of blocking it.

INSTALLATION

A. DOWNLOADING THE LATEST INSTALLER

To make sure you are running the latest version of Mikron Compressor please visit our Product Updates page at www.112dB.com/download/mikron/compressor and download the latest installer for your operating system. (If you already have a demo with the same version number installed you may skip this step and continue to C. Authorizing the plugin below.)

B. PLUGIN INSTALLATION

Mikron Compressor comes in the form of a single installer for all available plugin formats: VST3, AAX, and Audio Units.

MAC OSX

1. Double click the Mikron Compressor Installer.pkg file to start the installer. If everything goes as expected, you will now see the welcome screen shown on the right.

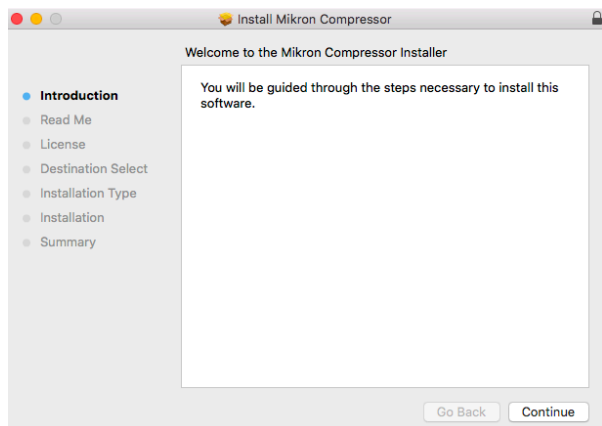
2. You might want to have a quick look at the readme, as it may contain important last-minute information that was not available at the time of writing.

3. You will be asked to agree to the terms of the license agreement.

4. The installer installs all plugin formats (VST3, AAX, and Audio Units) by default.

5.. You will be prompted for your Mac password to complete the installation.

6. If the installer detects you haven't activated your license yet, the 112dB License Manager will be started.



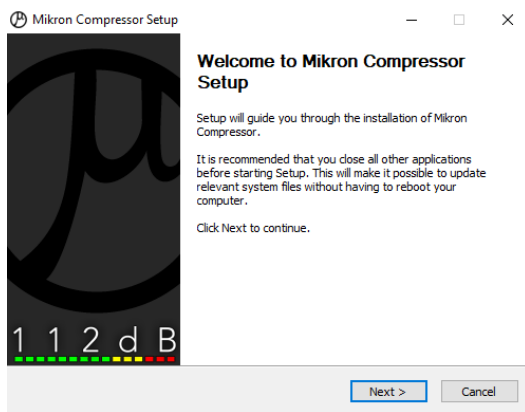
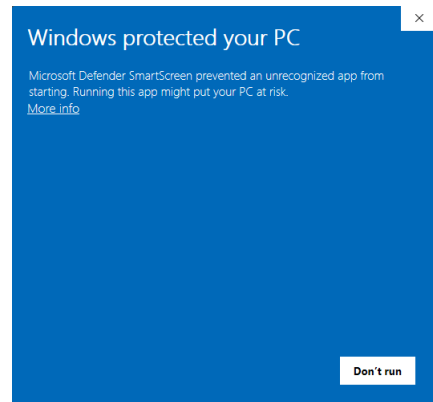
WINDOWS

1. Double click the Mikron Compressor Installer.exe file to run the setup program.

Windows might give you the following warning:
'Microsoft Defender SmartScreen prevented an unrecognized app from starting. Running this app might put your PC at risk'

No need to worry, this simply means that the installer is too new to be recognized by Microsoft Defender yet. We can assure you that we're not in the habit of putting malware in our plugins, so if you downloaded the installer from our website, you can safely ignore this. Click on '[More info](#)'. Make sure that 112dB is mentioned as Publisher. Then click 'Run Anyway'.

Depending on your system settings, you now might get another message: 'Do you want to allow this app to make changes to your device?' Click 'yes' to continue with the installation.



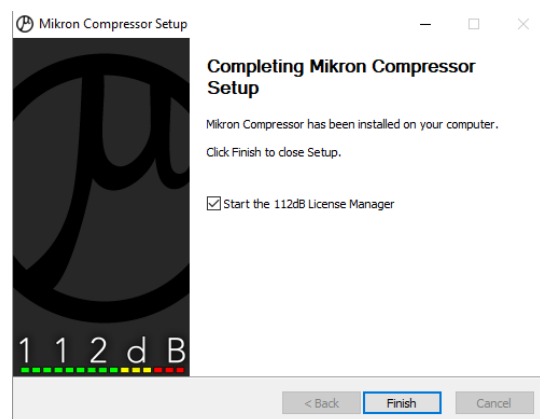
2. If everything goes as expected, you will now see the welcome screen shown on the left.

3. In the next step you will be asked to agree to the terms of the license agreement.

4. The installer installs all plugin formats (VST3 and AAX) by default.

5. When Mikron Compressor has been installed, Setup is complete and you may click the Finish button. By default 'Start the 112dB License Manager' will be selected. Keep it selected if you haven't activated your license yet, and want to activate it now. If you already have a license installed, you can deselect it.

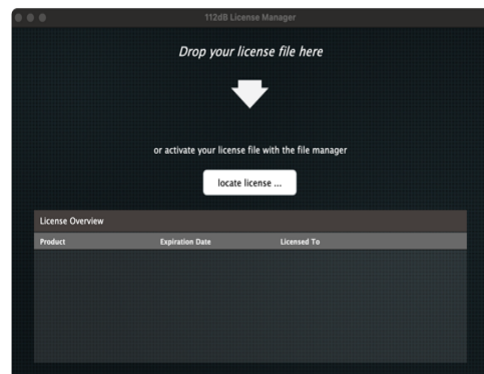
6. You might want to have a quick look at the readme, that was installed in \Program Files\112dB\Mikron Compressor, as it may contain important last-minute information that was not available at the time of writing.



C. AUTHORIZING THE PLUGIN

With your purchase or demo download you should have received an email containing a license file (in the form of an XML-document). Save this file to your computer.

The 112dB License Manager will be started automatically after the installation is finished. Drag and drop your license file on the License Manager window. Or alternatively click on 'locate license...', navigate to the folder where you saved the license file, select it, and click 'Open'. You can decide to skip this step, and activate your license later from within the plugin.



FROM DEMO TO PERMANENT LICENSE

To replace a demo license with a permanent license, first save the permanent XML license from your purchase confirmation email to your computer. Open the 112dB License Manager (see 'Where can I find the License Manager?' below). Drag and drop your license file on the license manager window to activate Mikron Compressor. Or alternatively, click on 'locate license...', navigate to the folder where you saved the license file, select it, and click 'Open'. In your License Overview you will now see 'perpetual' instead of a specific expiry date for Mikron Compressor under 'Expiration Date'.

WHERE CAN I FIND THE LICENSE MANAGER?

The 112dB License Manager can be found here:

Windows: \Program Files\112dB

Mac: /Applications/112dB

TROUBLESHOOTING

Some email clients do not like plain text attachments. For this reason the license is attached in both text (.xml) and zipped (.zip) formats. If you receive an error message saying that the 112dB Mikron Compressor .xml license is invalid or corrupt, the most likely cause is that it got corrupted during email transfer. In this case please save the 112dB Mikron Compressor License.zip attachment to your computer instead, unzip the file (this will produce a 112dB Mikron Compressor License .xml file) and try authorizing again.

SUPPORT

If you encounter any problems during the installation or authorization process, please contact us by email at support@112dB.com.

INSTALLING ON MULTIPLE COMPUTERS

The license file you received is not tied to a specific computer, only to a specific person. You can use the same license file to authorize the plugin on any system, as long as it is yours. This way you can install and use the plugin on your studio setup, your home computer, and your travel notebook at the same time.

U N I N S T A L L I N G

The uninstaller for Mikron Compressor can be found here:

Mac: /Applications/112dB/Mikron Compressor

Windows: \Program Files\112dB\Mikron Compressor

In addition the uninstaller will be listed on Windows under Control Panel » Add/Remove Programs.

I N S T A L L A T I O N L O C A T I O N S

Factory presets:

Mac: /Library/Application Support /112dB/Mikron Compressor

Windows: \Program Data\112dB\112dB\Mikron Compressor

User presets:

Mac: /Documents/112dB/Mikron Compressor/User Presets

Windows: \Documents\112dB\Mikron Compressor\User Presets

License Manager:

Mac: /Applications/112dB

Windows: \Program Files\112dB

VST3-plugin:

Mac: /Library/Audio/Plug-Ins/VST3

Windows: \Program Files\Common Files\VST3

AAX-plugin:

Mac: /Library/Application Support /Avid/Audio/Plug-Ins

Windows: \Program Files\ Common Files\Avid\Audio\Plug-Ins

AU-plugin:

Mac: /Library/Audio/Plug-Ins/Components

M A N U A L

The manual for Mikron Compressor can be downloaded from our website:

<https://www.112db.com/plugins/mikron/compressor/help/Manual.pdf>

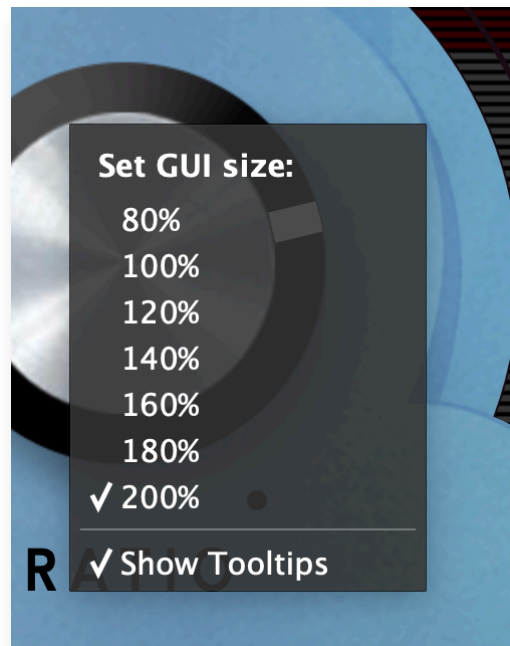
The Mikron Cascade user interface has been designed to be as intuitive and easy to operate as possible. There are functions that might not be immediately obvious, however, and could use some explanation.:

RESIZE

To change the size of the GUI, you can drag at the corner of the plugin window, but you can also right (cmd)-click anywhere on the plugin interface and select your size of choice in the pop-up window that will appear.

TOOLTIPS

Hovering over any item of the interface brings up a floating tooltip window with a brief description of that control's function. If you want to disable this function, right (cmd)-click anywhere on the plugin interface and deselect 'Show tooltips' in the pop-up window that will appear.



NUMERICAL ENTRY

Turning a knob or hovering over it will change the name below the knob into its value. Clicking on this number will open a small edit window that allows you to change this value by typing in a new one. To dispose of the edit window either hit <Enter> or click anywhere outside it.

RESET TO DEFAULT VALUE

<Ctrl>-clicking knobs and sliders will reset them to their default value.

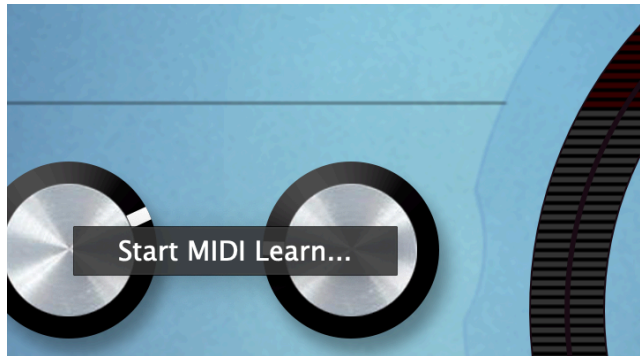
FINETUNE

Cmd-click-drag makes very small moves with the knob possible.

MIDI AUTOMATION

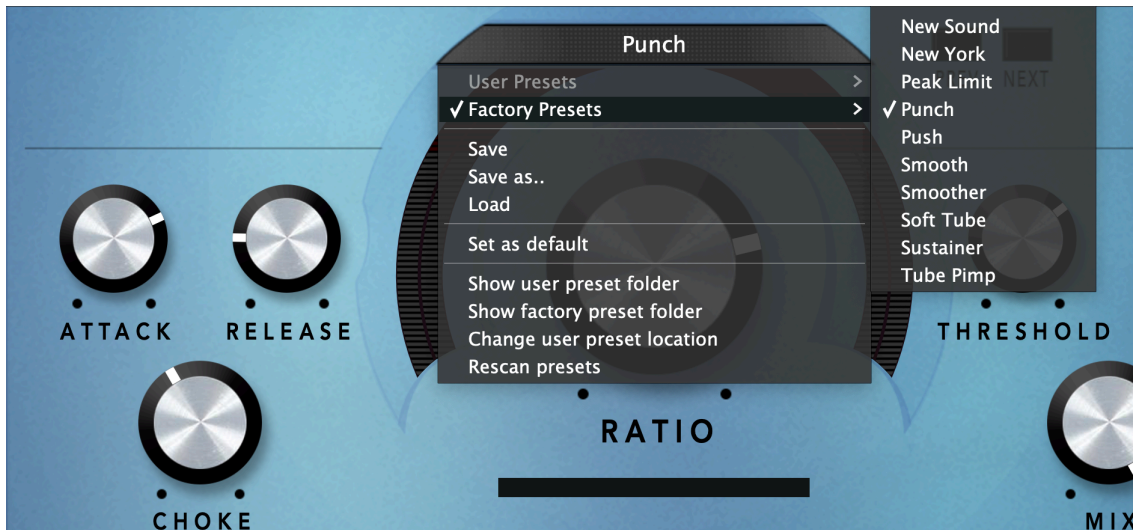
All knobs can be controlled by an external MIDI keyboard or MIDI controller. To assign a MIDI control simply right- (cmd-)click on the knob you want to connect and a window will pop up: 'Start MIDI learn'.

Click on this window, and move the control on your external MIDI keyboard or controller that you want to assign to this knob. If everything goes as expected, you will now see the knob moving when you move the control on your MIDI keyboard. Right-click (ctrl-click) on the control again and click 'Stop MIDI learn'. Do you want to detach the knob again? Right (ctrl)-click on the knob, and choose: 'Detach from midi automation'



PRESETS

Mikron Cascade comes with a set of carefully selected factory presets, and of course, there is an option to add your own presets as well. The name of the currently selected preset is displayed in the preset display at the top of the plugin.



For quick access to presets there's the preset menu: a drop-down list of presets you can scroll through. Clicking on the preset name will open up a menu. At the top of it you will find two items: Factory Presets, and User Presets. Factory Presets contains the presets that come with the plugin. They can't be altered. Under User Presets you will find the presets that you added yourself. Those you can change in any way you like.

Clicking on 'User Presets' or 'Factory Presets' brings up a complete list of currently loaded presets, optionally organized by category, from which you can select a new preset. The currently selected preset is shown with a checkmark (✓) in front of it, as are the category folders in which it resides.

Alternatively you can use the prev/next buttons next to the preset menu to move one preset up or down

CREATING A PRESET

So you found a great new setting that you want to save as a preset. Use 'save' to save it under the current name (the name that is shown in the display). 'Save as' gives you the option to choose a different name and/or a different location for your preset.

ORGANIZING PRESETS

Clicking on 'Show User Preset Folder' will open a file manager window of your computer. If you want to delete a preset or change its name, you can do it here. You can also add subfolders, or anything else you would do in the file manager. After you are done select 'Rescan Presets' from the drop down menu to see you changes reflected in the menu.

LOAD

This enables you to load presets from a different location than your User Preset Folder.

SET AS DEFAULT

This sets the current preset as the default preset Mikron Cascade will start up with.

EXCHANGING PRESETS

You created a preset on another computer or want to use some presets that someone else made? No problem. The only thing you need to do is to save these preset(s) in the User Presets folder on your computer. If you haven't changed the location of this folder, it can be found in / Documents/112dB/Mikron Cascade

Or if you just want to have a quick look at a preset, use 'Load' in the preset menu, go to the place where you saved your presets, select a preset, and click 'open'. Note that you have to save this preset to your User Presets if you want it to show up in the preset menu .

THE KNOBS



ATTACK (0-10ms)

The Attack knob sets the time it takes to attenuate (reduce) the sound level once the input signal has exceeded the threshold. The longer the attack time, the longer it takes for the attenuation to reach the required level and the smoother the transition is. Therefore, longer attack times allow the initial part of transients to pass through. Sometimes this is exactly what you want; for example, to create a more prominent initial click in a kick drum sound. But if this is not desirable, use shorter attack times in combination with the Choke knob.

RELEASE (10-1000ms)

The Release knob sets the time it takes for the signal to return to its original level once it has dropped below the threshold level. If the release time is set too short for the current signal, too much gain is restored each time the signal falls below the threshold. This results in audible 'pumping' and 'breathing' artifacts and, at extreme settings, distortion of low-frequency components. Generally speaking, higher release settings are more suitable for complex audio sources and provide for more transparent compression. However, if the release time is set too long, the gain reduction caused by loud peaks may persist through the softer sections that follow them.



CHOKE (0-100 %)

The choke knob is a control you will generally not find in a compressor. It's a unique 112dB feature that we invented for Mikron Compressor's 'big brother' Big Blue Compressor. It is inspired by the typical way tube compressors reshape sound transients. As discussed in the Attack section, longer attack times allow transients to pass through. Although this often adds



something attractive to the sound, transients sometimes get undesirably loud. The way to solve this digitally is to use a look-ahead function. Analog compressors however, can't 'preview' the signal, so they have to do something else. In tube compressors, this is solved by saturating (choking) the transients during the attack time. If we imagine looking inside the tube of a tube compressor, we can visualize electrons being emitted by the cathode when the sound level exceeds

a certain threshold. This results in a temporary shortage of electrons until the power supply recovers and recharges the cathode. During this period of electron shortage, the transients get 'choked'. This not only compresses the sound but also gives it a certain desirable esthetic. This esthetic is what we've tried to capture with the Choke knob.

The Choke knob allows you to set the saturation level relative to the measured level. The higher the choke value, the fewer transients pass through.

RATIO [1.00:1.0-INF:1.0]

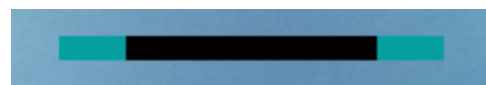
The Ratio knob determines the amount of compression (gain reduction) that is applied. To be more specific, it determines how much the gain will be reduced if the input signal exceeds the threshold. 1:1 means no compression at all. A ratio of 3:1 means that a signal exceeding the



threshold by 3 dB will result in a signal only 1 dB over the threshold – that is a gain reduction of 2 dB in this case. Inf:1 means maximal compression: any signal exceeding the threshold will be brought down to the threshold level. This is also known as limiting – although, in practice, any ratio equal to or greater than 10:1 effectively prevents the input signal from exceeding the threshold level and is therefore considered limiting. However, to make Mikron Compressor work as a limiter in the true sense, you have to combine a high compression ratio with a short attack.

CAT'S EYE

The cat's eye (also called magic eye) is a meter that can be found in old tube devices. It provides visual feedback on the amount of gain reduction that the compressor imparts. The glowing ends grow to meet in the middle as the gain reduction increases. In extreme settings the lights will cross and will grow from the center of the tube to the outer parts when the gain reduction increases further.



TRESHOLD [-60-0dB]



The Threshold knob sets the level at which the compressor kicks in. An input signal below the threshold passes unaltered, but if the signal exceeds the threshold its volume is reduced.

OUT [-24-24dB]

Sets the global output level. As you probably know a compressor applies gain reduction to any signal peaks exceeding the threshold level. That means that, after compression, your signal will usually be considerably quieter than it was before. Mikron Compressor automatically attempts to estimate the level to which the compressed output signal needs to be raised in order to restore it to the original peak value of the input. Peaks are raised to their original level, while quieter sounds are made louder, so there's less difference in level between the loudest and quietest parts of a track. If necessary, the Out knob can be used to finetune the result.



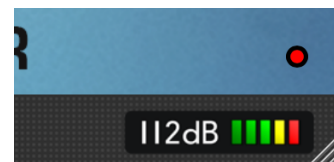
MIX [0-100%]

With the Mix knob you can crossfade between the input signal and the compressed signal. This enables you to mix an unprocessed 'dry' signal with a (usually heavily) compressed version of the same signal. Known as parallel or New York compression, this is a technique to add 'oomph' to a sound (such as a kick drum) without destroying the dynamics. You get the benefits of the compressed signal but also keep the dynamics of the uncompressed signal. Wet + dry always adds up to 100%. 0% means completely dry (uncompressed signal); 100% means completely wet (compressed signal). 40% means you get a mix of 40% wet and 60% dry.



ON/OFF

Gives you an easy way to bypass Mikron Compressor. When the light is on, the effect is applied to the signal. When it is off, the effect is disabled.



SYSTEM REQUIREMENTS

OPERATING SYSTEM

- Windows 10 or up
- Mac Os X (Intel or Apple Silicon): 10.11 (El Capitan), and up

HOSTS

Mikron Compressor is compatible with any host that understands the AAX, VST3, and/or Audio Units protocol.

UPDATES AND SUPPORT

Updates will be made available at

www/112dB.com/download/mikron/compressor

For product support, questions, comments, feature suggestions, and anything you feel is worth sharing, please contact our support staff by email at

support@112dB.com

CREDITS

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112dB team: Anouschka Busch, Klaus Voltmer, Martijn Zwartjes.

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AVIR image resizing algorithm designed by Aleksey Vaneev

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Special shouts to our dedicated beta testers.