



*Klanghelm*

**MJUC**

**variable- $\mu$  compressor**

**- USER GUIDE -**

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Click on the logo to enter the global settings menu and credits.  
SEE PAGE 8

Click to enter the preset menu incl. save, save as default, copy/paste presets or copy plugin states

Choose between 5 GUI-sizes. Right click to switch to a bigger size. Right click while holding down Alt switches to a smaller size.

Click to en/disable high quality processing (oversampled and more accurate models)

Previous preset

Next preset



Choose between 3 models:

MK 1: inspired by early variable-mu designs with very gentle compression characteristics and lots of vibe.

MK2: more obvious, forward sounding compression based on american designs from the 60s.

Mk3: modern interpretation of the variable-mu topic. very flexible and punchy

Click to switch between two plugin states.

To copy one state to the other enter the preset menu and select "copy A to B" or "copy B to A" depending on which state is active.

NOTE: the states aren't saved with your session. When re-opening, both states are set to the plugin state you've saved with the plugin instance in your session.

Automatic gain compensation (auto-makeup):

The calculated MakeUp level is based on the RMS-difference between input level and compressed signal. It gets recalculated (and applied) each time when a gain reduction affecting control is changed. This calculated makeup level is saved with the session. It's recommended to leave AGC OFF when using automation, since it might lead to undesired results when automating.

NOTE: When AGC is ON, you can still fine-tune the output level with the make-up control

Sets the reference level not only for the VU meter but also for the entire signal path. Click to enter a value. If you click at the "CAL" label use can also drag the mouse to change the calibration level. Or position the mouse pointer over the CAL label and use the mouse wheel.

CHANNEL MODE (only visible on stereo channels): Click to choose MONO, STEREO or DUAL MONO configuration. Right click to switch to next option. Right click while holding down the Alt key switches to the previous option. Mouse-wheel input is also possible.

Click on the meter to bypass MJUC.

VU mode: Input, Output, Gain Reduction or OUT-IN: RMS difference Out minus In. Right click to switch to next option. Right click while holding down the Alt key switches to the previous option. Mouse-wheel input is also possible.

Sets the compression amount

DRIVE: Determines the saturation amount for input & output stage. When set to CLEAN, only the compression stage is active, saving CPU

TIMBRE sets the overall tone by modifying the frequency response of the gain stages. -5=prominent mids, attenuated highs (Dark) 0.=mostly neutral +5="smiley curve" (HiFi)



Make-up/output gain (dB)

Click to bypass/unbypass the plugin

Mix unprocessed and processed signal.

Timing constants of the compressor:  
 1: fast attack/fast release  
 2: slow attack/medium release  
 3: slow attack/longish release  
 4: slow attack/long release  
 5: slow attack/fast program dependent release  
 6: fast attack/long program dependent release

Switches between compression and limiting

Sidechain HighPassFilter cutoff frequency (Hz)

Click the arrow to show/hide the bottom panel

Sets the compression amount

Sets the compression ratio

Enables a second variable mu tube stage, which leads to denser compression characteristics.

Enables the interstage transformer, which separates the gain reduction stage from the final gain stage. Alters the tone and character of the compression, helps to reduce overall noise of the unit. Leads to cleaner and clearer compression characteristics.

CHANNEL MODE (only visible on stereo channels): Click to choose MONO, STEREO or DUAL MONO configuration. Right click to switch to next option. Right click while holding down the Alt key switches to the previous option. Mouse-wheel input is also possible.

Click on the meter to bypass MJUC.

VU mode: Input, Output, Gain Reduction or OUT-IN: RMS difference Out minus In. Right click to switch to next option. Right click while holding down the Alt key switches to the previous option. Mouse-wheel input is also possible.

Make-up/output gain (dB)

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Mix unprocessed and processed signal.



TIMBRE sets the overall tone by modifying the frequency response of the gain stages. -5=prominent mids, attenuated highs (Dark) 0.=mostly neutral +5="smiley curve" (HiFi)

Program-dependent ATTACK from around 0.8 ms up to 35 ms

DRIVE: Determines the saturation amount for input & output stage. When set to CLEAN, only the compression stage is active, saving CPU

Program-dependent RECOVERY (release) from around 20 ms up to 3.6 sec.

Click the arrow to show/hide the bottom panel

Sidechain HighPassFilter cutoff frequency (Hz)

**CHANNEL MODE** (only visible on stereo channels): Click to choose MONO, STEREO or DUAL MONO configuration. Right click to switch to next option. Right click while holding down the Alt key switches to the previous option. Mouse-wheel input is also possible.

**VU mode:** Input, Output, Gain Reduction or OUT-IN: RMS difference Out minus In. Right click to switch to next option. Right click while holding down the Alt key switches to the previous option. Mouse-wheel input is also possible.

Click on the meter to bypass MJUC.

Make-up/output gain (dB)

move the slider to the right for a punchier compression behaviour, also great for bass heavy signals to avoid distortion when using fast attack and recovery times

Click to bypass/un-bypass the plugin

Mix unprocessed and processed signal.

Sidechain HighPassFilter cutoff frequency (Hz)

Program-dependent RECOVERY (release) from around 20 ms up to 3.6 sec.

Click the arrow to show/hide the bottom panel

**DRIVE:** Determines the saturation amount for input & output stage. When set to CLEAN, only the compression stage is active, saving CPU

Program-dependent ATTACK from around 0.4 ms up to 35 ms

TIMBRE sets the overall tone by modifying the frequency response of the gain stages.  
-5=prominent mids, attenuated highs (Dark)  
0.=mostly neutral  
+5="smiley curve" (HiFi)

Enables the interstage transformer, which separates the gain reduction stage from the final gain stage. Alters the tone and character of the compression, helps to reduce overall noise of the unit. Leads to cleaner and clearer compression characteristics.

Enables a second variable mu tube stage, which leads to denser compression characteristics.

Sets the compression ratio

Sets the compression amount

The screenshot shows a window titled 'Credits & Global Settings' with two panes. The left pane, 'CREDITS', displays the 'Klanghelm' logo and version information: model: MJUC, version: BETA 5, DSP: Tony Frenzel, GUI: Tony Frenzel, and a website link [www.klanghelm.com](http://www.klanghelm.com). The right pane, 'GLOBAL SETTINGS', contains several controls: 'Enable Tooltips' (yes/no), 'Knob-Mode' (vertical), 'Show & Edit Values' (yes/no), 'GR-Meter Speed' (slow/fast), and 'Mouse-Drag Sensitivity' (a slider from high to low). A 'save' button is at the bottom. Callouts provide detailed instructions for each control.

Close the GLOBAL SETTINGS menu without saving

Shows an explanation, when hovering over a control

sets the mouse drag behaviour when moving a knob on the GUI

Displays a text box below each knob, where you can review and edit the control value

Sets the behaviour of the gain reduction meter (when the VU-meter is set to GR). When set to SLOW, the gain reduction is shown with the timing constants of a standard VU meter. When set to fast, the GR meter acts like a peak gain reduction meter.

Click on the hyperlink to visit the Klanghelm website

Click to save the global settings and close the menu. NOTE: the changes affect the current instance immediately. All other active MJUC instances will be affected on project reload.

Sets the mouse drag sensitivity when moving a knob on the GUI

**The global settings are saved here:**

Windows: C:\Users\\AppData\Roaming\Klanghelm\MJUC\settings.xml  
 OSX: /Users/<username>/Library/Klanghelm/MJUC/settings.xml

If you want to revert to the FACTORY global settings, simply delete the settings.xml file from your HDD.

**WORKFLOW:**

1. make sure, that your input signal hits around 0dBVU. This is the optimal working level for MJUC.
2. use the COMPRESSION to adjust the compression to taste.
3. use the MAKE-UP control to compensate for any volume loss caused by the compression.

**PRESETS:**

Use the arrow buttons to select the previous/next preset or click in the preset field to select a preset from the drop down menu.

To save your own default setting, click on the preset-field, then choose save->save as default.

Please note that the GUI size is saved here too. So you can define your preferred GUI size here, which is recalled when opening a new plugin instance.

**User Presets Path:**

Windows: C:\Users\\AppData\Roaming\Klanghelm\MJUC\UserPresets

OSX: /Users/<username>/Library/Klanghelm/MJUC/UserPresets

**Location of the Default State:**

Windows: C:\Users\\AppData\Roaming\Klanghelm\MJUC\default.xml

OSX: /Users/<username>/Library/Klanghelm/MJUC/default.xml

If you want to revert to the FACTORY default settings, simply delete the default.xml file from your HDD

Code and GUI: Tony Frenzel

Special thanks to the beta testers.

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