# H76 PEAK LIMITER

The **HoRNet H76** is a faithful emulation of one of the most famous and widely used peak limiters in the history of music. Since the introduction of this device in the late '60s, it has been used in thousands of music productions requiring precise automatic control of peak signal levels during recording, mastering sessions, broadcasting, and many other creative uses.

In the original unit, peak limiting is achieved by utilising a **FET** as a variable voltage resistor. The behaviour of this unique circuit has been carefully replicated in the **HoRNet H76**, allowing this plugin to **perform severe limiting without adding distortion**.

The GUI of the **HoRNet H76** offers the classical knobs and controls that can be found on the hardware.

The **input** knob adjusts the level of the incoming signal that enters the compressor, the **output** knob controls the level of the signal after compression.

The **Attack** knob on the **HoRNet H76** adjusts the speed at which the compressor responds to the incoming signal, the **Release** knob regulates the time it takes for the **HoRNet H76** to return to the original signal level after compression.

The front panel **meter** offers a handy switch to read either the amount of gain reduction or the input/output signal level, **four selectable compression rates** ranging from 4:1 to 20:1 plus a creative "**ALL buttons**" options that replicate the effect of pushing simultaneously all the ratio buttons.

In the **HoRNet H76**, the gain structure throughout the limiter has also been emulated by an analog model, maintaining an excellent signal-to-noise ratio.

In addition to all the classic features available on the original unit, the **HoRNet H76** offers a range of modern enhancements that seamlessly integrate the plugin into any contemporary studio workflow.   This includes input and output **trim controls** for precise signal level adjustment before and after compression. These parameters can also be automatically adjusted to a specified target or linked to maintain consistent levels between input and output.

Gain Reduction, Attack, and Release can be automatically calculated, and the amount of compression adjusted using the Dry/Wet parameter. All the plugin effects can be easily bypassed with the bypass switch and some extra grit can be added with Analog and the Hiss switches.

Parameters :

**Input:** The input knob on the **HoRNet H76** adjusts the level of the incoming signal that enters the compressor, influencing **the amount of compression applied**. Increasing the input drives harder compression and the analog emulation if enabled..

**Output:** The output knob controls the level of the signal after compression, allowing you to **adjust the final output level** to match your desired mix balance if analog emulation is enabled increasing the output level also increases the saturation.

**Attack:** The **Attack** knob controls the speed at which the **HoRNet H76** reacts to the incoming signal, **adjusting how quickly compression onset occurs**. Attack time is adjustable from less than 20 microseconds to 800 microseconds.

**Release:** the **Release time** is continuously adjustable from 50 milliseconds to 1.1 seconds and it controls the the time needed for the HoRNet H76 to revert to the original signal level.

*For both controls (attack and release), note that increasing the knob settings results in shorter attack and release times.*

**Ratio:** The four ratio buttons determine the amount of compression applied, ranging from gentle (4:1 ratio) to more aggressive limiting (20:1 ratio). A creative "**ALL buttons**" option is available to simulate the effect of **engaging all ratio buttons simultaneously**, enhancing the compression effect.

**Meter:** The meter on **HoRNet H76** displays either gain reduction or the input/output signal level, providing essential visual feedback for adjusting compression and monitoring audio levels. The parameter to display can be selected with the **GR** (*gain reduction*) , **IN** (input), **OUT** (output) buttons, when switched to either IN our OUT it works a an analog VU meter.

**OFF:** the **OFF button** set bypass the compression/limiting stage of the plugin.

**MK**: the MakeUP (MK) button automatically compensates for the volume reduction  that occurs when the compressor reduces the level of peaks in the audio.

**Input / Output trims:** input and output trim controls for precise adjustment of signal levels before and after compression. These controls can be automatically adjusted (**Auto Trim**) to a specified target (**Trim Target**) or linked (**Link I/O**) to maintain consistent levels between input and output.

**AutoGR**: Automatic Gain Reduction , adjusts the compression level dynamically based on the input signal's amplitude and the **target GR** . When enabled the AutoGR adjusts the input knob of the compressor to match the peak gain reduction specified in the "target GR" control. If "MK" is enabled the output knob is also automatically adjusted to compensate for the gain reduction.

**Auto Att/Rel:** adjusts the attack and release times automatically based on the incoming audio signal. This feature optimises compression settings dynamically, ensuring effective and natural-sounding compression without manual adjustments.

**Dry/Wet**: control blends between the original and processed audio signals, allowing flexible adjustment of effect intensity while preserving the original sound

**Oversample**: Set  your preferred sampling rate to enhance accuracy and reduce artefacts like aliasing, when set to "Auto" the control automatically sets the best amount of oversampling according to the sample rate of your session.

**ByPass**: Completely bypass the plugin

**Analog:**  Emulates the analog circuit of the original hardware unit including the transformer input and output and the class A amplifiers.

**Hiss**:  Replicates the subtle noise characteristics of the analog equipment, it can be turned off for a more modern sound.

To fully master and enjoy the **HoRNet H76**, experiment with your audio tracks and explore its various parameters, particularly the Attack/Release combinations, ratios, and input/output settings. Trust your ears, and you'll be able to recreate that unique, classic compressor/limiter vibe.

If you have any questions or need assistance with the **HoRNet H76** plugin, please contact our support team by submitting a **support request** here:
https://www.hornetplugins.com/support/submit-support-request/
We are here to help you get the most out of our products!