



## BC1-THD

Stereo Bus Compressor



Congratulations on buying the BC1-THD. This is one of the most transparent stereo bus compressors ever made, it's manufactured and assembled in Sweden and thoroughly tested before leaving the factory.

The BC1-THD provides smooth bus compression associated with one of the most famous bus compressors from the mid 80's. Mixing engineers call it the "magic glue" when transparent compression strengthens mixes without compromising clarity. The BC1-THD provides just that kind of compression bringing cohesion and punch; equally useful for drum bus and instrument compression.

The built-in blend control makes it easy to apply parallel compression by adjusting the mix of dry and compressed signal. A mute switch is provided for muting the dry signal making it possible to adjust the compression without changing the blend control.

A switchable side chain filter can be applied at 80Hz, 150Hz or 220Hz which makes the BC1-THD less responsive to low frequency energy.

The external side chain input makes it possible to have the BC1-THD pump to an external source.

A THD function adds more harmonics to the signal. The HPF and THD were borrowed from the BC501 but we also added an all new feature called "grab" which selects a harder threshold knee on all four ratio settings.

The BC1-THD will add the "magic glue" and make your mixes sound punchy and coherent. All controls are stepped for 100% repeatability.

### The parameters

**Threshold:** -20dB to +20dB in 41 steps. The threshold adjusts the level above where the signal is reduced. A lower threshold means a larger portion of the signal will be treated. For optimal results make sure that the input level is high enough.

**Ext Sc:** Engages the external side chain input on the back of the BC1-THD. By using the external side chain another signal can control the behavior of the compressor; most commonly used by DJs for ducking / lowering the music volume automatically when speaking. It's also effectively used for ducking the bass track or background whenever the kick drum hits by sending the kick track to the external sidechain input. For more information please read the section about side chain compression.

**Ratio:** 1.5:1 / 2:1 / 4:1 / 10:1 /. The ratio determines the input/output ratio for signals above the threshold. For example, a 4:1 ratio means that a signal overshooting the threshold by 4 dB will leave the compressor 1 dB above the threshold. At the 1.5:1 and 2:1 setting a relatively subtle soft knee compression is applied. At 4:1, the compression becomes more obvious, and at 10:1, the BC1-THD is basically a peak limiter.

**HPF:** When engaged a gentle 6dB/octave high pass filter at 80Hz, 150Hz or 220Hz is applied to the internal or external side chain signal, making the compression less responsive to low frequency energy. In most situations the HPF buttons should be engaged.

**THD:** Adds more even harmonics to the signal when engaged.

**Grab:** Selects a harder threshold knee on all four ratio settings.

**Attack:** 0.1 / 0.3 / 0.6 / 1 / 3 / 6 / 10 / 30 / 60 / 120ms. The attack setting defines the time it takes for the compressor to decrease the gain and reach the level determined by the ratio. Faster attack settings means better control of the transient part of the sound, but if set too fast the compressor might cut away more transients than wanted. A good starting point is 10ms.

**Release:** 50 / 100 / 300 / 600ms / 1.2S / Auto. The release setting defines the time it takes for the compressor to increase the gain to the level determined by the ratio, once the level has fallen below the threshold. Higher release settings will result in a less intrusive compression with lower distortion, but if set too high the compression might not be effective enough. A good starting point is 100ms or Auto.

**Auto release:** Makes the release function time dependent on the duration of the signal peak. In practise it's a fire-and-forget setting that behaves the same way as a classic British bus compressor used by many since the 80's.

**Gain reduction meter:** The meter shows the average level (RMS) of the gain reduction which differs from the peak level meters of most plug-ins - comparatively it's slower and in practise it means that a little goes a long way. The proper amount of compression on a mix is usually done when the needle moves in the middle of 0 and 4. Higher ratio and faster release settings will result in a more obvious compression/limiting that sometimes is too fast for the needle to show. Always use your ears first and just use the meter as a quick reference.

**Make-up:** 0 to +20dB of gain in 41 steps to balance the compressed signal level against the input signal level.

**Mute:** When engaged the uncompressed signal (dry) is muted; useful when doing parallel compression and you just want to listen to the compressed signal.

**Blend:** Dry to compressed sound in 21 steps. Turning the knob clock wise will mix the original signal with the compressed signal.

**In:** Engages and disengages the compressor. Should be used a lot to control how the compressor is affecting the sound.

For settings examples please see the BC1-THD manual at [www.tkaudio.se](http://www.tkaudio.se)

## EU - Declaration of conformity / Överensstämmelseintyg

### Product

TK Audio BC1-THD, Stereo bus compressor  
115v - 200mA  
230v - 100mA

### Manufacturer / Tillverkare

Thomas Kristiansson  
Musikverkstan i Halmstad AB / TK Audio  
Falkenbergsgatan 10  
30233 Halmstad  
Sweden



Halmstad, January 2019

### Declaration of conformity

I declare under my sole responsibility that this product, to which this declaration relates, is in conformity with the following standards:

EN55013, EN55020:2002, EN61000-3-2, EN61000-4-2 and EN60065

Following the provision of 73/23/EEC, 89/336/EEC and 93/68/EEC.

### Överensstämmelseintyg

Härmed intygas helt på eget ansvar att denna produkt, vilket detta intyg avser, uppfyller följande standarder:

EN55013, EN55020:2002, EN61000-3-2, EN61000-4-2 och EN60065

Following the provision of 73/23/EEC, 89/336/EEC och 93/68/EEC.