



## BC501-GR & BC501-Ltd 500-series Stereo Bus Compressor



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

The BC501-GR 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 BC501-GR provides just that kind of compression bringing cohesion and punch; equally useful for drum bus and instrument compression.

A grab function has been added to the new model which offers a harder threshold knee and makes the compressor even more perfect for the drum bus. The built-in blend control makes it easy to apply parallel compression by adjusting the mix of dry and compressed signal. A switchable sidechain filter can be applied at 80Hz, 150Hz or 220Hz which makes the BC501-GR less responsive to low frequency energy. The external sidechain input makes it possible to have the BC501-GR pump to an external source.

The BC501-GR will add the "magic glue" and make your mixes sound punchy and coherent. All controls are stepped for 100% repeatability.

## THE PARAMETERS:

**IN:** Activating or bypassing the compressor. The sidechain is always active so the meter will move even in bypass mode.

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

**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.

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

**BLEND:** From dry to compressed signal in 41 steps.

**HPF:** When engaged a gentle 6dB/octave high pass filter at 80Hz, 150Hz or 220Hz is applied to the internal or external sidechain signal, making the compression less responsive to low frequency energy. Both 80Hz and 150Hz engaged gives 220Hz.

**GRAB:** Selects a harder threshold knee.

**EXT SC:** Engages the external sidechain input through the 1/8" stereo jack. By using the external sidechain 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.

**RATIO:** 1.25:1 / 1.5:1 / 2:1 / 4:1 / 6:1 / 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 BC501-GR is basically a peak limiter.

**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. The 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 amount of the gain reduction. Always use your ears first and just use the meter as a quick reference.

**Note:** As the threshold knee varies between the ratio settings the amount of gain reduction will also vary between the steps!

In: activates the compressor. The sidechain is always active so meter will move even in bypass mode.

Gain reduction meter

THD: adds more even harmonics.

HPF: 80Hz, 150Hz or 220Hz with both 80 and 150 engaged.

Threshold

Ratio selection

Make-up gain

Attack time

Blend control between dry and compressed signal.

Release time

Grab: selects a harder threshold knee.

External sidechain

