7 Steps To Perfect Compression

If you follow these 2 groups of 7 steps each, in the order presented, you will have perfect compression EVERY time, guaranteed. Using these steps will also teach you how to use compression to reach whatever kind of tone you are looking for with dynamics. There are two sets of steps involved. Steps 1 through 7 of Setup place your settings at the initial levels needed to start hearing a difference in each setting as you progress through steps 1 through 7 of Programming.

Setup Steps.

Step 1-Set your Attack at the slowest setting possible.

Step 2-Set your Release at the fastest setting possible.

Step 3-Set your Ratio at the highest setting possible.

Step 4-Set your Threshold to be sensitive, so that it is constantly activating whenever there is sound and leave it there.

Step 5-Set your Knee at the lowest possible level, (0 dB or the lowest contour) so the compressor activates exactly at the chosen threshold dB level, and leave it there.

Step 6-Set your Gain at 0dB and leave it there.

Step 7-Set your Mix at 100% and leave it there.

Programming Steps.

Step 1-Slowly lower the Attack time until you reach the setting which gives you the effect you want, and leave it there.

(The lower your Attack setting becomes, the faster your compressor acts on the signal; this will soften your transients of the initial attack. The higher your Attack setting becomes, the slower your compressor activates; this will allow more natural attack, and create a more aggressive sound.)

Step 2-Slowly raise your Release setting until you reach the setting which gives you the effect you want, and leave it there.

(The lower your Release setting becomes, the faster your compressor stops acting on the signal. The faster your Release setting becomes, the less musical it becomes. We should stop at the point right before the next note starts.

Let's say the fastest note I would play in a song is a 1/16th note, this means that I personally want my compressor to release right before I play the next 1/16th note. By allowing the compressor to reset, my signal gets to go back to a natural ratio of 1:1, allowing my signal to still sound musical and natural.

If you set the release to be too slow, the compressor will be on constantly, and this will kill your dynamics. At extreme settings, your compressor starts creating a pumping effect; pumping is not desirable for most genres, with the exception of EDM.)

Step 3-Lower your Ratio until you reach the setting which gives you the level of compression which you want, and leave it there.

(The lower your Ratio setting becomes, the more natural your signal sounds, and the less your signal gets compressed. The higher your setting becomes, the more evenly your signal will decay)

Step 4-Raise your threshold until it's at the the highest possible setting which allows the compressor to activate whenever there is a signal present and leave it there.

(The lower your threshold becomes, the lower level your signal needs to be to activate the compressor. The higher your threshold becomes, the higher your signal needs to be before the compressor is activated.)

Step 5-Raise your knee until you reach the setting which allows the type of compressor activation range you want.

(At a Knee value of 0 dB, you can think of the Threshold as being a single dB point. This means the change in level will be abrupt. For a signal below this range, the compressor does nothing.

As you raise the dB level of the Knee, your Threshold becomes a range, rather than a single dB point. As you enter the Knee's range, the compressor will become gradually more active, until it is fully "on" at the top end of the range.

In general you can think of Knee ranges as being centered on the threshold, but some compressors may be weighted towards the high or low side.

Let's say you set the Knee at 4:1, in this case;
Signals far below your chosen Threshold are uncompressed at a ratio of 1:1.
Signals at or right around the Threshold are more compressed a ratio of 2.5:1
Signals far above the Threshold are fully compressed at a ratio of 4:1.)

Step 6-Listen to the signals dB level through your monitors. Now bypass the compressor and listen again. If you followed the other steps correctly, your signal will be louder with the compressor off. Raise your gain to makeup the difference and turn the compressor back on. Continue comparing the sound between your compressor's on and off settings and adjust the gain until the level between the two is equal. Now leave it there.

Step 7- Adjust your mix to allow more or less of your natural signal through. At a setting of 100%, only your compressed signal will be heard. At a setting of 0%, only your natural signal will be heard. I personally like to set this so at least some natural signal is heard, for a more natural sound.