

COMPRESSION

Audio has a dynamic range; which is the difference between the loudest part and the quietest part. A compressor is used to reduce the loud parts and increase the quiet parts in order to allow more 'head room'. More head room means that the overall audio's volume can be increased.

Threshold - Controls when the automatic volume reduction starts. When the input signal reaches above when the automatic volume reduction kicks in, the compressor will reduce the volume automatically to prevent the signal from getting too loud.

Attack - This is how quickly the volume is reduced once the input exceeds the threshold that is set.

Release - When the signal input reaches below the threshold, the release will control how fast the volume returns.

Ratio - Ratio controls how far above the threshold a signal will need to be before output to be raised in volume. For example, A 1:1 ratio will not do anything. A 2:1 ratio means if the signal input hits 2dB above the threshold, the signal will be compressed or reduced by 1 dB meaning that the output signal will be 1 dB louder. A 10:1 ratio means if the signal input hits 10dB above the threshold, the output signal will be 1 dB louder.

Gain - Once you've compressed audio, the volume will be reduced. In order for the compressed signal to maintain it's original volume, the Gain, otherwise known as 'makeup gain' is used to increase the volume.