

# Dynamic Range Processor Drills: Matching Compressor and Gate Settings By Ear

## Instructions:

These ten drills will help train your ears to hear differences in the threshold, attack and release settings of compressors and gates. Each drill contains a reference track and another track to fix by making it sound like the reference track. Compare the tone quality of each by ‘option-clicking’ the tracks’ Solo button. (This method allows you to hear one track while muting the other.) Once you identify the tonal differences, adjust the threshold, attack or release of the ‘fix me’ track’s processor so it matches the sound of the reference track.

The goal of the lesson is to have you recognize dynamic processor settings by ear alone. Most students will need to practice these drills for several days, if not weeks, before they are confident of their ability. Before you turn in your answers, see if you can make the adjustments by ear alone.

**\*\*Important:** Always hold the Option key when you click the Solo Button. Otherwise, you will solo both tracks, making it impossible to tell them apart. If you accidentally close a window, press F1.\*\*

Drill 1: Identify the dynamic processor type (compressor, gate or expander) used for each track. Some of the tracks will have no signal processing. Solo each track separately by holding down the Option key while clicking on the Solo button. The song starts softly, so you may wish to wait until all the instruments come in before soloing tracks.

Kick	Compressor	Gate	Expander	no dynamic processing
Snare	Compressor	Gate	Expander	no dynamic processing
Hat	Compressor	Gate	Expander	no dynamic processing
Tom 1	Compressor	Gate	Expander	no dynamic processing
Tom 2 (not struck during excerpt)	Compressor	Gate	Expander	no dynamic processing
Tom 3 (not struck during excerpt)	Compressor	Gate	Expander	no dynamic processing
Overhead Cymbals	Compressor	Gate	Expander	no dynamic processing
Bass	Compressor	Gate	Expander	no dynamic processing
Electric Guitar 1	Compressor	Gate	Expander	no dynamic processing
Acoustic Guitar 2	Compressor	Gate	Expander	no dynamic processing
Slide Guitar 3	Compressor	Gate	Expander	no dynamic processing
Vox	Compressor	Gate	Expander	no dynamic processing

Drill 2: Gate Snare Fix Threshold. Play enable this drill by clicking on the play enable button next to its name in the Chunks window. The Threshold control is set too high so none of the snare track triggers the gate; that's why you don't hear any sound. Adjust the Threshold control until the track sounds like the Reference track.

What setting did you choose for the Threshold control? \_\_\_\_\_ dB

Drill 3: Gate Snare Fix Attack. Play enable this drill by clicking on the play enable button next to its name in the Chunks window. The Attack control is set too slow so that the snare track loses its 'snap.' Adjust the Attack control until the track sounds like the Reference track.

What setting did you choose for the Attack control? \_\_\_\_\_ msec.

Drill 4: Gate Snare Fix Release. Play enable this drill by clicking on the play enable button next to its name in the Chunks window. The Release control is set too slow so that the gate rarely shuts – the track sounds as if the gate is not working. Adjust the Release control until the track sounds like the Reference track.

What setting did you choose for the Release control? \_\_\_\_\_ sec.

Drill 5: Compress Snare Fix Threshold. Play enable this drill by clicking on the play enable button next to its name in the Chunks window. The Threshold control is set too low so all of the snare track is attenuated; that's why you hear so little sound. Adjust the Threshold control until the track sounds like the Reference track. (Remember to adjust Gain control as well since the Threshold setting impacts the output level.)

What setting did you choose for the Threshold control? \_\_\_\_\_ dB

What setting did you choose for the Gain control? \_\_\_\_\_ dB

Drill 6: Compress Snare Fix Attack. Play enable this drill by clicking on the play enable button next to its name in the Chunks window. The Attack control is set too slow so that the snare track clips because the compressor does not attenuate fast enough. Adjust the Attack control until the track sounds like the Reference track.

What setting did you choose for the Attack control? \_\_\_\_\_ msec.

Drill 7: Compress Snare Fix Release. Play enable this drill by clicking on the play enable button next to its name in the Chunks window. The Release control is set too fast so that the compressor immediately recovers – the track sounds much too noisy because the compressor pumps up the ambiance. Adjust the Release control until the track sounds like the Reference track.

What setting did you choose for the Release control? \_\_\_\_\_ sec.

Drill 8: Compress Bass Fix Threshold. Play enable this drill by clicking on the play enable button next to its name in the Chunks window. The Threshold control is set too high so none of the bass track is compressed. Adjust the Threshold control until the track sounds like the Reference track. (Remember to adjust Gain control as well since the Threshold setting impacts the output level.)

What setting did you choose for the Threshold control? \_\_\_\_\_ dB

What setting did you choose for the Gain control? \_\_\_\_\_ dB

Drill 9: Compress Bass Fix Attack. Play enable this drill by clicking on the play enable button next to its name in the Chunks window. The Attack control is set too fast so that the bass track loses some of its 'snap.' because the compressor attenuate too quickly. Adjust the Attack control until the track sounds like the Reference track.

What setting did you choose for the Attack control? \_\_\_\_\_ msec.

Drill 10: Compress Bass Fix Release. Play enable this drill by clicking on the play enable button next to its name in the Chunks window. The Release control is set too fast so that the compressor immediately recovers after each vibration of the bass's strings. This distorts the sound much like clipping an amplifier. Adjust the Release control until the track sounds like the Reference track.

What setting did you choose for the Release control? \_\_\_\_\_ sec.