














## Logic Pro X Compressor Circuit Type Cheat Sheet v.1.6

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<b>Inspiration</b>	<i>"Inspired by", not emulation</i>	Original Emagic/ Apple design	Focusrite Red 3	Urei 1176LN Blackface	dbx 165A	SSL G Bus	Urei 1176LN Silverface	Teletronix LA-2A
<b>Compressor GUI</b>	<i>Screenshot</i>							
<b>Hardware</b>	<i>Photo</i>	N/A						
<b>Harmonic saturation level</b>	<i>Higher levels mean more coloration</i>	Low level	High level	High level	Medium level	High level	High level	Low level
<b>Harmonics type</b>	<i>Odd or even order</i>	3rd harmonic only	Odd order	Odd order	Odd order with 3rd harmonic emphasis	Odd order	Odd order	Odd order
<b>Dynamic interaction of saturation</b>	<i>How saturation is affected by compression</i>	None	Proportional to compression amount	Proportional to compression amount	Proportional to compression amount	Fixed	Fixed	None
<b>Noise in saturation</b>	<i>If non-harmonic noise is introduced</i>	None	None	None	None	High level	High level	Low level
<b>RMS/Peak</b>	<i>If detection is averaged or peak level</i>	User selectable RMS or peak	Peak	Peak	Peak	Peak	Peak	RMS
<b>Attack &amp; release control</b>	<i>If attack &amp; release are adjustable</i>	Yes	Yes	Yes	No, full auto	Yes	Yes	Yes
<b>Hidden frequency dependency</b>	<i>If bass can result in more compression</i>	None	Small	Small	Small	Medium	Medium	Strong
<b>User adjustable knee</b>	<i>If the knee is user adjustable</i>	Yes	No	No	No	Yes	Yes	Yes
<b>Knee transfer curve</b>	<i>Relation of nominal knee value to ratio</i>	Inverse bell-curve	Compound S-curves	Gentle bell-curve	Gentle bell-curve	Linear proportional	Linear proportional	Linear proportional

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<b>Ratio transfer curve</b>	<i>Relation of nominal ratio value to actual ratio</i>	Linear	Gentle inverse bell-curve	Linear	Linear with forced soft transition knee	Linear	Linear with logarithmic knee near range cap	Gentle logarithmic
<b>Range</b>	<i>Max. gain reduction (cap)</i>	-48 dB GR	-36 dB GR	-26 dB GR	-44 dB GR	-48 dB GR	-19 dB GR	-41 dB GR
<b>Ratio dependent range</b>	<i>If range varies with ratio</i>	Low correlation	High correlation	Medium correlation	Low correlation	No	No	No
<b>Typical application</b>	<i>Often used for</i>	Stuff that needs to stay clean · Pulling up low levels · External side-chain ducking	Parallel compression (on drums) · Full mix bus	Peak control on vocals or guitar · Smashing (snare) drums · Beefing up bass	Adding punch on drums or bass	Drum group · Piano · Full mix bus	Same usage as Studio FET, only a lot more aggressive	Levelling of vocals · Bass · Piano
<b>Usage/ settings tip</b>	<i>Your Mileage May Vary</i>	Use Peak and high ratios to shape signals and control transients. Use RMS with soft knee and low ratios to smooth overall levels.	For parallel smash: Fastest attack, medium release, high ratio. Activate Auto Gain and pull threshold down. Blend using Mix knob.	Very fast attack to control the peaks. Slow attack to emphasize the transient/punch in bass or drums.	Auto attack/release clamp down quickly, but slow enough to accentuate the punch. Watch out for over-compression.	Side-chain HPF @ 60 Hz to reduce pumping from bass. Use Sum detection to reduce pumping from loud, wide stereo sounds.	Aggressive settings (high ratio + fastest attack + fast/medium release) can really pull up the tail on drums or plucky sounds	Great for smoothing vocals or controlling average level of a bass. Often inserted after a FET comp that controls the peaks first.