



CIQ-5 COMPIQ PRO STELLA COMPRESSOR PEDAL MANUAL

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SPECIFICATIONS

Input impedance: > 1MΩ
Output Impedance: ~100Ω
0dB input reference level: -20dBu (77.5mV)
Output noise: -95dBV @0dBV gain
THD: 0.05% for -5dBV input signal level @ 1kHz
Output frequency response: -2dB @ 40Hz; 0dB @ 100Hz - 22KHz
Optimal Power Voltage: 9-12VDC ±10%, Center Negative Barrel
DC Power Plug Barrel: Ø 5.1/2.1mm, 12-15mm long
Power Consumption: < 29mAh
Product Size: Length: 61mm, Depth: 120mm, Height: 51mm
Product Weight: 227 gr.
Packed Weight: 335 gr.
Packed Shipping Weight (one unit): 491 gr.

INTRODUCTION

Thank you for choosing **CIQ-5 CompiQ PRO Stella Compressor** as your audio dynamic processing tool for your instrument. **The Stella Compressor** is an all analog studio-grade compressor pedal featuring full manual controls and characteristics rarely (if ever) found on pedals of this size. Designed and handbuilt in our own micro-lab, the CompiQ Stella is a one-of-a-kind effect pedal built around a high performance THAT Analog Engine®, which ensures very transparent, high-quality audio processing, without altering instrument's tone.

EFFECT CONTROLS

FOOTSWITCH - When engaged, the switch routes the audio signal through active circuitry and the Power LED (which is the 0dB compression LED) is lit Green. When pushed again, the signal is routed **True Bypass** from Input to Output, leaving the audio intact, even when the pedal is not powered.

RATIO - This control sets how much the audio signal is going to be compressed after it passes above the set threshold. It has a continuous range starting from **1:1** (for one unit of input signal level you get one unit of signal output level, which implies no compression is applied) and up to **Infinite:1**. At **9'clock**, the control corresponds to a **2:1 ratio** - a mild, musical and very useful compression, which delicately evens out signal level hikes. At **12'clock** it corresponds to a

4:1 ratio - usually set when more compression feel is desirable, like when playing arpeggiated chords. At **3'clock** it corresponds to a **10:1 ratio** - a rather aggressive compression, which may be desirable when note sustain is needed. Passing over the 20dB amount of compression, the reduction in amplitude tends to behave like the Inf:1 ratio. This corresponds to a **Limiting effect**. When used as a limiter, use Threshold control to set the level after which compressor will operate, and set Ratio above 10:1. **Keep in mind that the more compression is employed, the more make-up gain is required, which results in a common increment in noise.**



THRESHOLD - This control sets the signal level after which compression is applied. **Compression is only applied to the portion of the signal that goes above the threshold.** Set very low in the range, it makes compression kick in quickly, even for short amplitude input signals. Set higher in the range, it lets a good portion of the signal untouched. **This is a very important control. It enables the compression to hit only higher strokes of a signal while leaving the meat and bone of audio intact.** This also translates into greater sound transparency and a rise in output level, making any make-up gain (or mixing Dry/Wet signals) entirely unnecessary. This, in turn, lessens the amplification noise at the output. With the 50dB range of thresholds, CompiQ Stella can accommodate a wide assortment of audio signals from many electric instruments, not only guitar or bass. With a suitable preamp, it may be utilized even with vocal or instrument microphones. When the Threshold is set higher, CompiQ Stella can also be used with line-level signals.

TIMING SWITCH - The switch has three positions: **Manual**, **Auto Fast**, and **Auto Slower**. In **Manual (M)** position, attack & release times are set through **Attack** and **Release** controls. In **Auto Fast (F)** and **Auto Slower (S)** positions, you activate the **Auto Adjusting Dynamic Timing** circuit, which adjusts Attack & Release timings to **playing dynamics**. Short percussive transients are handled with smaller times, while constant signals benefit from longer times. **Auto Fast** timings are generally 5-7ms for the attack, 70ms for release. **Auto Slower** timings are about 10-15ms for attack and 100-220ms for release time.

ATTACK & RELEASE - When **Timing Switch** is in the upward **Manual (M)** position, the controls set the attack and release times of compression. **Attack** sets the time needed to reach the highest level of compression (set by Ratio control) after the audio signal crosses above the set threshold. While the signal is above the threshold, compression is withholding. When signal reverts back below the threshold level, compression is gradually released. **Release** control sets the time needed for the compressed signal to return down to the input level. The controls scale show **milliseconds per decibel of compression**. These are not fixed times, but dependant on the amount of compression set by Ratio control and the level of input signal.

MAKE-UP GAIN - Because compression means dropping output signal, recovery gain is needed to even output with input level. **The more compression is employed (higher compression ratio), the more recovery gain has to be turned in to compensate.** Be conscious that at higher compression ratios, the recovery circuit must re-amplify a very low signal and with amplification, noise is added. **To overcome this, we strongly advise using Threshold or setting moderate compression Ratios and additionally use Soft Knee.** Conclusively, blend in some dry signal with the **Mix** control.

TILT-EQ - This control is a gentle EQ correction circuit inspired by the Hi-Fi electronics period. Turned fully counterclockwise, it increases lower frequencies (+6dB) while proportionally attenuating higher frequencies (-6dB) around the chosen **EQ Frequency Pivot**. Turned fully clockwise, the opposite will occur. When set to noon, lows and highs resemble input signal (no EQ-ing). An internal **Jumper (EQ/BYP)** can bypass the Tilt-EQ filter arrangement.

EQ PIVOT SWITCH - This switch chooses the **EQ Frequency Pivot** for the **Tilt-EQ** control. In **High (H)** position, pivot frequency is set around 1KHz - best suited for guitar. In **the Low (L)** position, the pivot is set at around 330Hz, which is proper for bass.

SOFT/HARD COMPRESSION KNEE - The **Hard Knee** compression is obvious and the ear will notice the dynamic processing clearly. Once the signal gets over the threshold, compression kicks in with a sharp

corner, and with higher compression ratios it makes the limiting effect clear. With lower ratios, it provides a good and musical compression effect. The **Soft Knee** is subtle and compression is applied progressively, with a soft corner curve. The effect is gentle and desirable when compression doesn't have to be explicit or used as an audio effect. Think of it as a mastering tool for voicing audio content. With higher ratios (4:1 to 10:1), it makes for a studio quality compression effect. When Soft Knee is used with higher thresholds, it adds more transparency to the sound, diluting compression feel.

SCF SWITCH - Side Chain Filter switch has three positions: **Normal** (N), **Low** (L) and **Deep** (D). In **Normal** position, the Side Chain Filter is set to accommodate a large range of audio signals and instruments. By design, it has an attenuation of lower frequencies below 1KHz, which allows the compressor to act with a short delay and let lower frequencies pass through without triggering the compression right away. This setting renders a natural response that is suitable for most cases. In **Low** (L) position, more of the lower end frequency (an additional -12dB@90Hz) is freed up to prevent triggering compressor kicking in too early. This is an intermediary position, and it lets more of the low end pass through at the output, while also lowering the amount of compression; which is also dependant on the input signal level. This is a proper setting for guitar and bas,s if a fuller sound is needed. In the **Deep** (D) position, even more of the frequency spectrum is freed up (-12dB@200Hz). This setting may be fine for guitar.

DRY/WET MIX - This control acts like an audio mixer, where you can blend input clean signal with output compressed signals. This helps restore transients or squished frequencies which are less perceived by ear when reduced to a lower level by compression. In the middle, the mix is 50-50. Such a setting washes out a lot of compression feel. The dry signal is a replication of the input signal. When set to 100% dry, ComplQ PRO acts like a buffer. An analog Tape Saturation effect can be applied to Dry Line.

TAPE SATURATION - SAT control acts on **Dry Line** only and emulates vintage studio tape saturation compression effect of the '60s - which is basically a musical sort of distortion happening when high amplitude audio signals are recorded on magnetic tape. It acts from clean (counterclockwise) and up to full saturation distortion (fully clockwise), where it resembles a very warm sounding mild overdrive effect. In between, you have an entire palette of colorful and musical distortions. The intent of this analog circuit is to saturate the **Dry Line** and then mix it with the **Compressed Line**, to fatten up the compressed sound with harmonic distortions, which will complement very well guitar and bass sound. **TIP: increase Dry Line Saturation, subtly mix it with the Compressed Line and then add a splash of chorus effect at the output; enjoy!** Two additional **Internal Jumpers** perform **Low Cut** and **High Cut** filters on Dry Line, to

perfectly trim **the Tape Saturation** effect. If filters are not used (Jumpers On), the saturation is applied to the whole audio spectrum, but it will first happen to higher amplitude low frequencies. If **Saturation** control is increased, all frequency spectrum will eventually clip in distortion and a drop in volume will happen. Use **Level** control to compensate. The **Low & High Cut Filters** are useful when lows seem too saturated (for bass instrument and humbucker guitar pickups) and may result in a fuzzy sound, or when too many highs in audio content may seem too brittle. **We recommend activating the Low Cut Filter at all times** by taking off the corresponding Jumper unless the Tape Saturation effect is not to be used at all and only a blend of compressed and dry sound is needed. If both Low & High Cut Filters are enabled (Jumpers Off), only the mids & high-mids are affected and at maximum saturation, the sound will resemble a tube screamer overdrive. You may like that! It means you have overdrive and a compressor in a box, that can be mixed together. **TIP: use Dry/Wet Mix, Tape Saturation and Level controls altogether, if you want to perfectly dose a subtle clipping effect to a natural compression sound.**

LEVEL - Use this control to **compensate for the reduction in volume** that happens **when increasing the Tape Saturation** effect. With a minimum saturation set, this control acts as a volume boost for the Dry Line.

COMPRESSION DISPLAY - A **6-LED display** takes accurate information from the RMS-level sensor and compiles visual feedback for the amount of compression applied to the input signal. **The display is calibrated for -20dBu (77.5mV) reference input level, proper for electric instrument pickups.** The display response is dynamic by nature and fluctuates from calibrated reference. Even at low to mid Ratios, with high input levelser, it can peak Yellow or Red color. **The Red color does not mean anything wrong!** This may occur regularly with high input signal levels, lower Threshold, and higher Ratio. **Use only your ear to achieve the desired compression effect!**

INPUT - Here you will connect either an instrument directly or the output of another pedal or a signal taken from the amplifier's SEND FX-loop.

OUTPUT - From here you will send the compressed signal to the next effect pedal, or an amplifier's input, or to the RETURN FX-loop of an amplifier. The output signal can also be recorded directly into a Hi-Z interface input.

DC POWER CONNECTOR - Use only good filtered power supplies, with a voltage of 9-12 VDC, center negative. Use a **DC Power Plug Ø5.1/2.1mm, with a barrel longer than 12mm (15mm recommended).**



CIQ-5 COMPIQ PRO STELLA COMPRESSOR PEDAL FOR GUITAR & BASS

MANUAL

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