

5 .75 1  
.35  
10  
0  
RELEASE  
HARD off 23 49  
3.2 106 159 234  
SC HP



BYPASS  
IN IN

**BOLY**

CrossCompressionEQ



2K1 3K2 4K9  
1K5 7K3 .45  
96 12K 18K 22K  
FREQ Hz  
2 0 2  
4 4 4 5  
6 8

## The Circuit

The CrosscOMPressionEQ (COMPEQ) is a stereo processing unit with two bands of EQ.

You can switch each band between shelving and peak bell filters, and they both feature a full dynamic section, which feature a “cross compression” feature more on that later).

The side chain is split between the frequency domain of each band respectively, and the low band side chain has a variable high pass filter built in.

## The Philosophy

This units builds on feedback and design work experience gathered from the DAQ/DS dynamic suite. This was boiled down to a 2RU design, and founded on readily available parts. It heavily expanded the “decomp” feature, originally introduced on the DAQ, while other aspects were toned down to keep it more restricted and focused.

You can use this unit as a bax style EQ, an “auto-tilt” dynamically triggered EQ, a standard EQ, two full band compressors working in tandem, or two bands of EQ. It will hold down excessive dynamics, or inject a dynamic element into your program material, if its a little too restrained and needs to dance a bit more.

## Frequency Selection

Frequency selection for the high/low bands respectively.

## Gain

+/-10dB total gain per band.

## Shelving/Bell

Switches the low band between peak bell/low shelving mode, and the high band between peak bell/high shelving modes.

## Hard/Soft

Switches between a medium ratio with a medium knee, to a low ratio with a soft knee.

## ...beyond Q

Q range goes from extremely narrow to extremely wide, which means, you can practically use each, individual band as a full band processing device, provided you set the frequency selection correct.

The original intention was to set up the switching between shelving and peak, so the Q would remain constant in Q mode, but this was still on the to-do list during the earlier day of doing listening tests and getting feedback on the fundamentals.

The test pilots did not take my advice to “set the Q around 0.7 when in shelving mode”, and it turned out, it was extremely helpful keeping the ability to go beyond that.

In general, you will want to keep it around 0.7, as I had recommended, but you can carve out some really helpful and unusual shapes when the frequency of the shelving bands gets in close proximity to its counterpart.

You can also use it to shape how the respective shelving filters shape the curves coming into the audible frequency spectrum,

For example, if you are fond of the high frequency type EQs, extending way beyond 20Khz, because you enjoy the ability to be able to shape the curve by extending the frequency of the bell, you can achieve that and much more by extending the high shelving filter, and varying the Q on this unit.

## Dynamics section

The usual controls dynamics, compression, attack and release, with 3 modes of auto-release, and a few settings going a little faster than the electronics are actually able to work continuously at. This is not a mass produced unit, and I don't believe in restricting the ranges to "fool proof", when going a little off road is sometimes extremely helpful. If you are unsure, stay out of the red and yellow zones.

## Cross compression

Inverts the amount of compression done on a band, and injects it to the opposing band at the ratio you set on the dial. Since you're using the low end to counteract the high end, and vice versa, it really can be described as "musical" in a meaningful way.

It's also important to note, that use of the cross compression and compression does not exclude each other. You can have 4 dynamic interactions going on at once.



## Master Gain

+/-10dB total gain

## SC HP

Low band side chain high pass frequency adjust.

## In

Switches in the respective bands

## Bypass

Hard bypass of the unit

## HR/Off/Res

Off takes out the dynamics section.

HR-mode switches the dynamics section in, with focus on headroom (typically for mastering duties).

Res switches the dynamics section in, with focus on resolution (typically for mix and buss duties).

# Calibration

\_revision 1.0

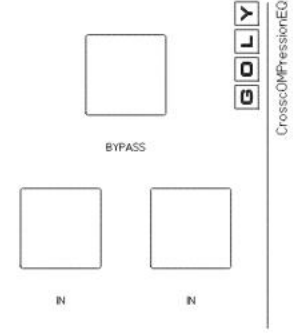
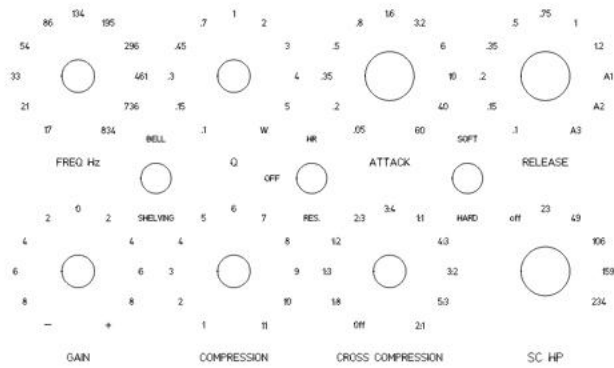
# **Appendix**

## **Recall Sheet**

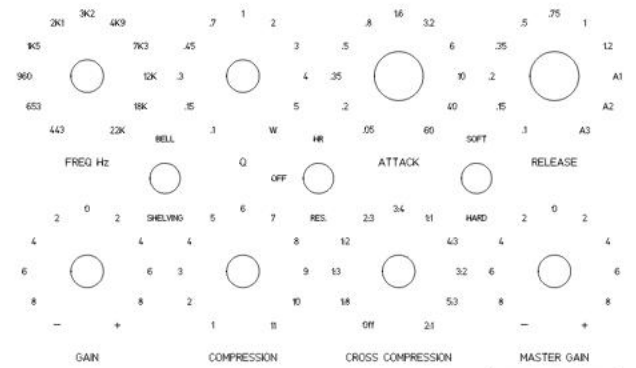


# RECALL SHEET

(Download full size on website)



CrossCompressionEQ



## Info

Units are hand built by Gustav Goly in Odense, Denmark.

In the event of a problem with your COMPEQ, unplug it, and contact your dealer, or GOLY direct for repairs.

## Contact

Mail [Info@goly.dk](mailto:Info@goly.dk)

Web [www.goly.dk](http://www.goly.dk)

Phone +45 53161601

I do not answer unscheduled calls, so please book a call by mail in advance, if you need to talk.

Your unit is serial #

Gustav Goly

## Declaration of CE Conformity

The construction of this unit is in compliance with the standards and regulations of the European Community.