
PORTER GRINDER EQ
HG IN
FILTERS IN

The Circuit

...is pretty self explanatory.

2 x 4 bands of EQ with switchable HPF/LPF on the low and high end, wrapped around an MS matrix, and a master gain.

The Philosophy

Based on the highly regarded “NetEQ”, by the late Barry Porter.

After many years of listening tinkering with the design, building, and listening, and adjusting, and listening, and doing custom units with various solutions -- and listening -- the only thing that remains unchanged is the parallel filter section.

The in- and output sections, the high and low pass filters, the layout of the circuit, the Q circuit, and the whole implementation of it has been redesigned, and when the listening tests were done, I took a really deep dive into the details and precision of all the controls.

What I have arrived at, is a very personal iteration of the circuit, with a new level of refinement. Still a Porter at its core, but also, very much a Grinder.

2023 Revision

I started working on custom solutions for my controls with Alpha in 2021, and they were developed for the Stem Mix Compressor, as well as the CrosscOMPressionEQ during their final design phases.

It's finally possible to present a solution for the PG, which brings the same level of control and recallability to the table that you have come to expect from the rest of the GOLY family.

Revision overview

The sound and the circuit remains exactly the same

Gain is 6dB +/- on a custom 41 step pot, with center tap, in order to obtain a perfect, zero gain reference.

Frequency is set up on a custom 41 step pot, which means, you have an almost continuous flow while dialing in your frequency. The torque is adjusted to give you a stepped feel while doing more careful tuning.

Design of the interface and control scales reflects these changes, and it's possible to make perfect recalls, even at this resolution.

Frequency Selection

31 frequency steps for each band

Gain

+/-6dB total gain per band

Q

The Q was changed from RMS to peak gain behaviour.

RMS behaviour keeps the energy constant, while the peak behaviour keeps the peak level constant.

Think of a balloon, if you squeeze it to make it narrower, it gets longer (higher peak, same amount of energy), but if you let a little air out, it will stay the same height as before (static peak, less energy).

What is preferable comes down to temperament, but aside from the practical aspects, I found that the redesigns gave a less ringy and more intuitive behaviour, especially at more narrow settings.

High & Low Pass Filters

In the original design, the high and low pass filters were added in series with the core circuit, and they were done with a simple RC filter on an opamp.

I always found them to be a bit “out of place”, when I switched them in, with the bands standing out relative to the rest of the EQ, so I nixed Porter’s HP/LP add-on, and with the help of a few relays, I tapped directly into the core of the parallel circuits.

The resonance peaks on them don’t *look* very good on paper, but they *sound* amazing, and they are fully sympathetic to the other bands, when they are engaged.

MS

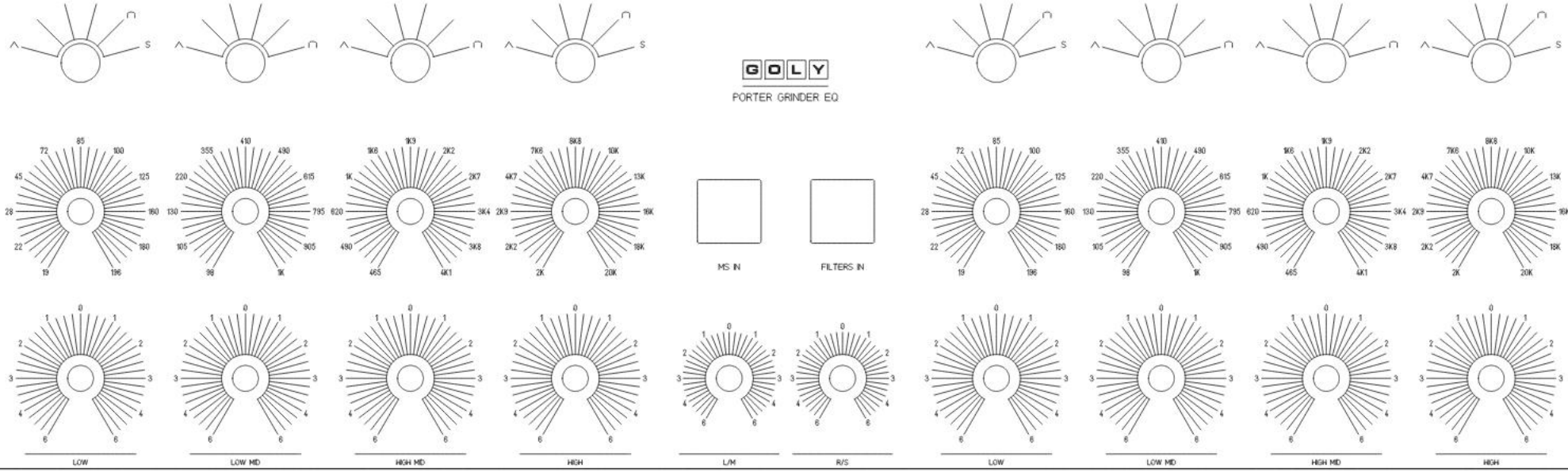
Ms circuit, built on modern, precise, integrated circuits.

Center Section

- Bypass, bypasses the filter section
- MS, wraps the MS encoder and decoder around the whole filter circuit.

Appendix

Recall Sheet


GOLY
PORTER GRINDER EQ
MS IN
FILTERS IN
LOW
LOW MID
HIGH MID
HIGH
L/M
R/S
LOW
LOW MID
HIGH MID
HIGH

Info

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

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

Contact

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Web 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.