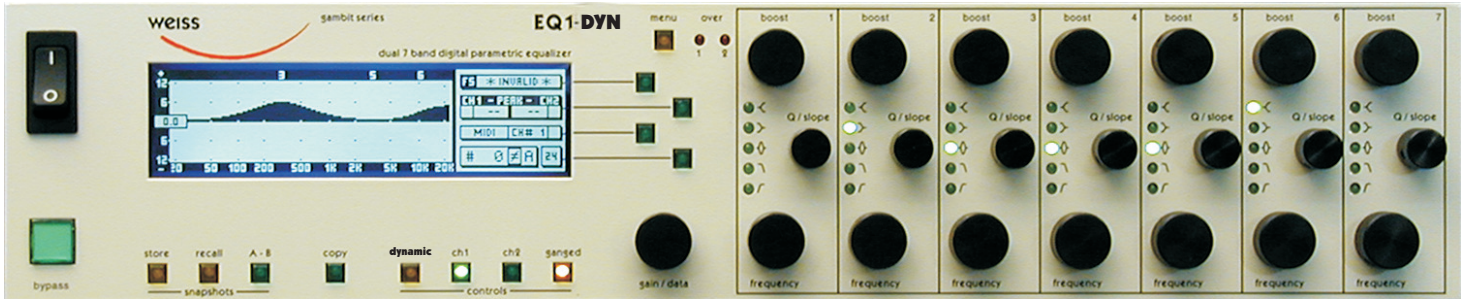
gambit series EQ1-DYN

dynamic dual seven band digital parametric equalizer, 24Bit / 96kHz



The Weiss Gambit Series EQ1-DYN

For the first time, Weiss Engineering brings an exciting new feature to its EQ palette: dynamic control in the frequency domain.
You adjust the EQ to a nominal setting the input signal is then analyzed to determine exactly how much equalization need actually be applied. If the signal is already loud in a certain band, it is not boosted even more. Or, alternatively, if you want to attenuate certain frequencies, these are only attenuated when they exceed a certain level.

Multi-band Dynamic? Or dynamic multi-band?
The EQ1-DYN features four freely adjustable dynamic bands, and additionally three linear bands per channel. Setting up the dynamic bands is as easy as setting a linear band. There is just one additional parameter to be adjusted by the user, the threshold control. This makes multi-band dynamic control as easy and as versatile as adjusting a parametric equalizer.

And all of this, of course, with the much sought after sound of the EQ1-MK2 ... including graphic and intuitive user interface, 96kHz processing, MIDI snapshot and remote control, and more.

For further information see the back of this brochure as well as the basic EQ1 and EQ1-MK2 leaflets.

"... I must tell you I am quite simply amazed at what this unit can do. I was able to bring dynamics to a sterile drum machine while de-essing the vocal with five bands left to spare. [...] and the results were spectacular."

Larry DeVivo,
Silvertone Mastering

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EQ1-DYN

The EQ1-DYN is a dynamically controlled equalizer. It has four dynamic bands (band 1, band 2, band 5 and band 6) and three linear bands (band 3, band 4 and band 7) per channel, each operating at 88.2 or 96 kHz, depending on input sampling frequency (88.2kHz processing with 44.1kHz and 88.2kHz inputs, 96kHz processing with 48kHz and 96kHz inputs).

A dynamic band operates similar to a compressor, with two additional features:

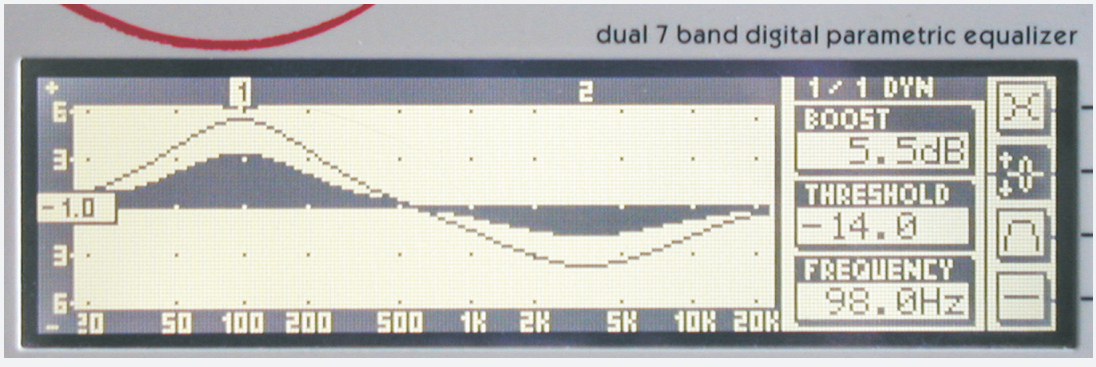
- The band is sensitive to signal level in its frequency range only. So when applying dynamic bass EQ, only the bass-band of the programme affects the dynamic behaviour. There is no cross-modulation from other bands. Some compressors (like the Weiss 102 Compressor) also have this feature, called "sidechain EQ". The exact centre frequency and bandwidth of the sidechain is dependent on the centre frequency and Q setting of the dynamic band.
- The gain is only applied to certain frequencies, and not across the whole audio band.

Other modes (low-cut, high-cut, low-shelving, high-shelving) are linear (no automatic boost / cut adjustment), and behave exactly the same as described in the **EQ1-MK2 Operating Manual**.

In addition to the dynamic operation of the bands, the overall *dynamic* frequency response is displayed in real-time in the LC display. This is necessary for the proper setup of the parameters of the dynamic band, and it gives direct visual feedback on the operation of the **EQ1-DYN**, similar to gain reduction meters on compressors.

The reason for choosing exactly bands 1, 2, 5 and 6 is the following:

As the name implies, a dynamic band is sensitive to the level of the input signal. Sometimes it is desirable to first add some EQ, and afterwards dynamically add some more. Or vice versa, first do some dynamic corrections and aftwards add overall EQ, including in the corrected band. Because the EQ bands are connected in series, this is only possible if there are linear bands before and after the dynamic bands.



Typical frequency response display with outlined nominal frequency response (thin line, as set by the user) and actual frequency response (solid black) applied by the DSP according to the program level and dynamics parameters.
Note the threshold parameter on the right hand side.