BEHRINGER DEQ2496 OPTIMAL PARAMETERS

Incorrect Parameters                   Correct Parameters

Images, testing, and parameters courtesy of KA0KA

Downward Expander Section (If not using Compressor)

**DYN Page 1 (EXPA)**
Ratio: 1:1.6

**DYN Page 2 (EXPA)**
Attack: 13.18 ms
Release: 49.9 ms

Compressor Section (If not using Downward Expander)

**DYN Page1 (COMP)**
* Ratio: 1:X

**DYN Page2 (COMP)**
Attack: 2.77 ms
Knee: User preference
Release: 85 ms

* Dynamic Ratio is user dependent on program material and preference...
Ratios above 20:1 can be classified as soft to hard limiting
Ratios above 6:1 can be classified as soft to hard compression
Ratios above 2:1 can be classified as soft leveling to mild compression
DEQ #1 Section

DEQ Page 1, DEQ #1
M-Gain: -15dB
Ratio: 1:100

DEQ Page 2, DEQ #1
Attack: 2.77ms
Release: 105.4ms

DEQ Page 3, DEQ #1
Mode: BP
Frequency: 40.4
BW (OCT): 4

DEQ #2 Section

DEQ Page 1, DEQ #2
M-Gain: -15dB
Ratio: 1:100

DEQ Page 2, DEQ #2
Attack: 61.59ms
Release: 50.9ms

DEQ Page 3, DEQ #2
Mode: BP
Frequency: 408
BW (OCT): 5

DEQ #3 Section

DEQ Page 1, DEQ #3
M-Gain: -15dB
Ratio: 1:100

DEQ Page 2, DEQ #3
Attack: .30ms
Release: 20ms

DEQ Page 3, DEQ #3
Mode: BP
Frequency: 10023
BW (OCT): 5

Notes:
- After entering all of the proper parameters, as given above, the individual thresholds for DEQ NO #1 and DEQ NO #2 should be reset to -5dB of gain reduction while a constant user program is feed into mic. (For example a solid ahhh...)
- Set DEQ NO #3 to the minimal threshold that eliminates any high frequency distortion.
- The DEQ center frequency and bandwidth values given above enables coverage as follows: DEQ1: 20Hz~300Hz, DEQ2: 300Hz~2.5kHz, DEQ3: 2.5kHz~20kHz
Limiter Section

DYN Page 2 (LIMIT MENU)
Hold: 30.6 ms
Release: 304.2 ms

Notes:

- All universal parameters (useful for all applications) were derived from extensive testing by Tyler, KA0KA, using his function generator and an oscilloscope to determine the best parameters for minimal distortion of a sine wave source at the output of the DEQ2496.

- In addition, the DEQ center frequencies, and their respective bandwidths, have been optimized to simulate a true multi-band compressor covering the entire 20Hz-20kHz audio spectrum.

Thanks Tyler, nice job!