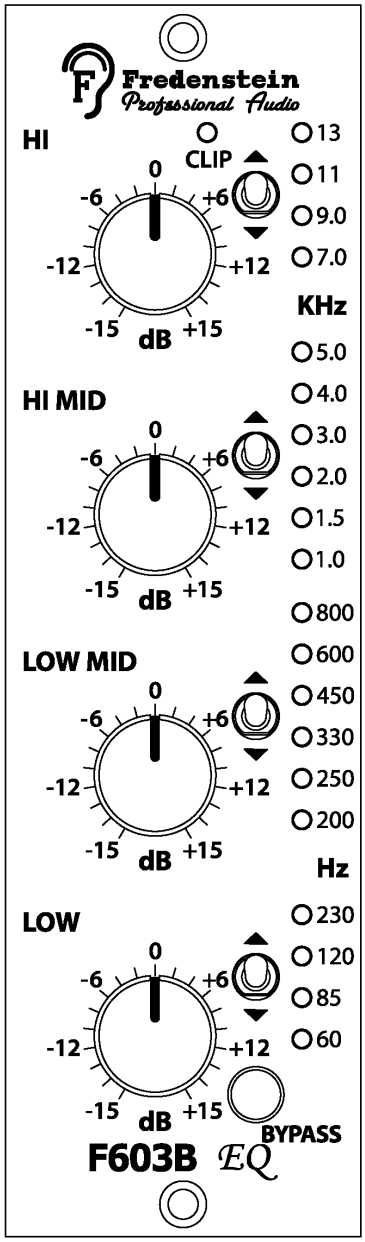
Fredenstein
Professional Audio

F603B
Low-Q four Band EQUALIZER

Operating Manual

Fredenstein F603B Equalizer

The F603B is a high performance Low-Q four band equalizer for tracking and mixing (Q = 0.8). The F603B features passive LC (Inductor / Capacitor) filters combined with a very short signal pass.
The low and high frequency filters are shelving types, while the mid frequencies are band pass filters. Each shelving filter has four different frequencies while the band pass filters offer six. The active filter range is indicated by LEDs. To facilitate sound comparisons, a true “hard” bypass is available. The gain range for each filter is +- 16 dB. All filters are switched by relays to guaranty the highest possible sound quality. The F603B exhibits unrivaled silkiness , but at the same time an extremely detailed sound stage. The high power output stage with an impedance of less than 20 Ohms and a driving capability of up to +- 200mA ensures no loss of performance with even the most demanding complex loads.
As all Fredenstein products, the F603B is designed by a German-American team and manufactured in Taiwan.



Overview:

Clip Indicator
Threshold + 24 dBu

Rotary Controls:

HI	:	High Frequency Gain
HI MID	:	High Mid Gain
LOW MID	:	Low Mid Gain
LOW	:	Low Frequency Gain

Switches:

HI	:	up/down to select High Frequency shelving filter band
HI MID	:	up/down to select Hi Mid band pass filter frequency
LOW Mid	:	up/down to select Low Mid band pass filter frequency
LOW	**:**	up/down to select Low Frequency shelving filter band
BYPASS	:	Hard Bypass function when lit

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Installation:

Please power down your rack or box first, before inserting the F603B. The power requirements are maximum +/-16V, +/-200mA. In case you don't use a Fredenstein Bento, please make sure your box or rack can support the current. Please consult your third party documentation in case of any doubt.

User Controls:

High Frequency Control:
Select the desired corner frequency for the high frequency shelving filter by flipping the switch up or down:
7000 Hz, 9000 Hz, 11 kHz and 13 kHz

High Frequency Gain:
Apply +/- 16 dB of high frequency gain.

Hi Mid Frequency Control:
Select the desired frequency for the hi mid frequency band pass filter by flipping the switch up or down:
1000 Hz, 1500 Hz, 2000 Hz, 3000 Hz, 4000 Hz, Hz and 5000 Hz

Hi Mid Frequency Gain:
Apply +/- 16 dB of hi mid frequency gain.

Low Mid Frequency Control:
Select the desired frequency for the low mid frequency band pass filter by flipping the switch up or down:
200 Hz, 250 Hz, 330 Hz, 450 Hz, 600 Hz, and 800 Hz

Low Mid Frequency Gain:
Apply +/- 16 dB of low mid frequency gain.

Low Frequency Control:
Select the desired corner frequency for the low frequency shelving filter by flipping the switch up or down:
60 Hz, 85 Hz, 120 Hz, and 230 Hz

Low Frequency Gain:
Apply +/- 16 dB of low frequency gain.

Bypass:
Hard Bypass function if switch is lit. Signal on the output is the input signal, no amplifiers are in the signal path (Filter Frequency LEDs will turn off).

The F603A automatically stores all parameters when turned off and reloads them on the next power up, no need to fill out recall sheets. If inserted in a Bento D box, all parameters are displayed on the LCD display.

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Technical Data:

Frequency Response	:	20 Hz – 20,000 Hz, +/- 0.2dB
Distortion	:	< 0.01%
S/N Ratio	:	> 90 dB at 0dB gain
Input Impedance	:	> 10KOhm
Max. Input Level	:	+ 24 dBu balanced
Output Impedance	:	20 Ohm
Max. Output Current	:	+/- 200 mA
Max. Output Level	:	+ 26 dBu balanced
High Shelving Filter	:	9 KHz – 13 kHz in 4 steps
High Shelving Gain	:	+/- 16 dB
Hi Mid Band Pass Filter	:	1000 Hz – 5000 Hz in 6 steps
Hi Mid Band Pass Gain	:	+/- 16 dB
Hi Mid Filter Q	:	0.8
Low Mid Band Pass Filter	:	200 Hz – 800 Hz in 6 steps
Low Mid Band Pass Gain	:	+/- 16 dB
Low Mid Filter Q	:	0.8
Low Shelving Filter	:	60 Hz – 230 Hz in 4 steps
Low Shelving Gain	:	+/- 16 dB
Power Consumption	:	+/- 16 V, +/- 200 mA (600 Ohm load)

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