Georg Neumann GmbH | Berlin

31772 80701

W 495 STB Equalizer (Stereo)

W 495 B Equalizer (Mono)

The W 495 STB Equalizer is a two channel unit and is contained in a standard cassette of size A1 (40 × 190 mm).
Each channel consists of a low and a high frequency filter, a boost-cut filter with switchable bandwidth, and an amplifier, all combined into a single active unit. For high and low frequency equalization there are each three cutoff frequencies available, and for boost-cut equalization 11 center frequencies may be selected.
The controls are coupled to adjust both channels simultaneously. However it is possible to switch each channel independently with a push button to a flat frequency response. The enables the user to affect only one of the two channels. The equalizer (device) is also available in a single channel version with the designation W 495 B.

Technical Data:

0.775 V ≙ 0 dB

Filter Section:

Frequency response in flat position	40 Hz to 15 kHz, ± 0.3 dB
Low frequency filter switchable	40, 60, 100 Hz
amplitude in steps	± 2-4-6-9-15 dB, ± 10%
High frequency filter switchable	7, 10, 14 kHz
amplitude in steps	± 2-4-6-9-15 dB, ± 10%
Boost-Cut filter switchable	175, 250, 350, 500, 700 Hz 1.0, 1.4, 2.0, 2.8, 4.0, 5.6 kHz
amplitude in steps	± 2-4-6-8-10 dB, ± 10%
Bandwidth of boost-cut filters switchable in three ranges	broad, middle, narrow
Bandwidth in broad range and 10 dB position	approx. 1 octave
Ratio of bandwidth broad : middle : narrow	1 : 0.5 : 0.25

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Input Data:

Input	balanced, floating
The input transformer is statically shielded.	
Input impedance (40 Hz-15 kHz)	≧ 2 kohms
Maximum source impedance	50 ohms
Input CMR @ 15 kHz	≧ 60 dB

Output Data:

Maximum output load	≧ 300 ohms
Nominal output level into 300 ohms	+ 6 dB
Maximum output level into 300 ohms,	
at operating voltage = 24 V	+ 22 dB
at operating voltage = 21 V	+ 21 dB
Output impedance	≦ 40 ohms
Output	balanced

For floating operation the W 495 STB stereo unit must be connected to a separate transformer, such as Neumann 09463002. The W 495 B mono equalizer is already equipped with a transformer.

Output Data with Transformer:

Output	balanced, floating
The output transformer is statically shielded.	
Output impedance	≦ 40 ohms
Output CMR @ 15 kHz	≧ 60 dB
Gain	0 dB, ± 0.5 dB
Gain trim, internally adjustable	Δ P = 1 dB
Total harmonic distortion:	
output level + 22 dB into 300 ohms	
operating voltage = 24 V	≦ 0.3%
Channel seperation @ 15 kHz	≧ 90 dB

Noise levels:

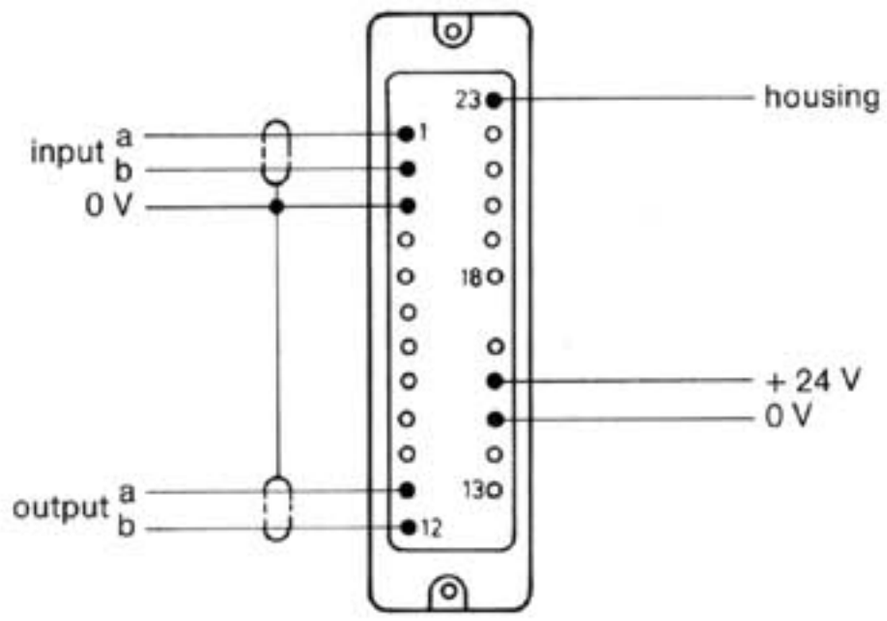
Source impedance = 50 ohms	
Load impedance = 300 ohms	
measured at output in flat position	
weighted peak	≦ −92 dB (DIN 45405)
weighted peak	≦ −88 dB (CCIR 468)
unweighted rms	≦ −99 dB (DIN 45405)

Power Supply:

Nominal operating voltage	+ 24 V dc
Permissible operating voltage range	+ 21 to + 28 V
Current consumption at 24 V:	
Stereo unit W 495 STB	
without signal	approx. 60 mA
with output signal, + 22 dB, 300 ohms	approx. 140 mA
Mono unit W 495 B	
without signal	approx. 30 mA
with output signal, + 22 dB, 300 ohms	approx. 70 mA
Ambient operating temperature	0°C to 50°C
Housing	A1 cassette
Dimension of cassette	40 mm (1.6") wide
	190 mm (7.5") high
	109.5 mm (4.3") deep
Weight W 495 STB	1.1 kg (2.43 lbs)
W 495 B	0.95 kg (2.09 lbs)
Connector	T 2700
Mating connector required	T 2701

Errors excepted. Subject to changes.

Connections to



W 495 B

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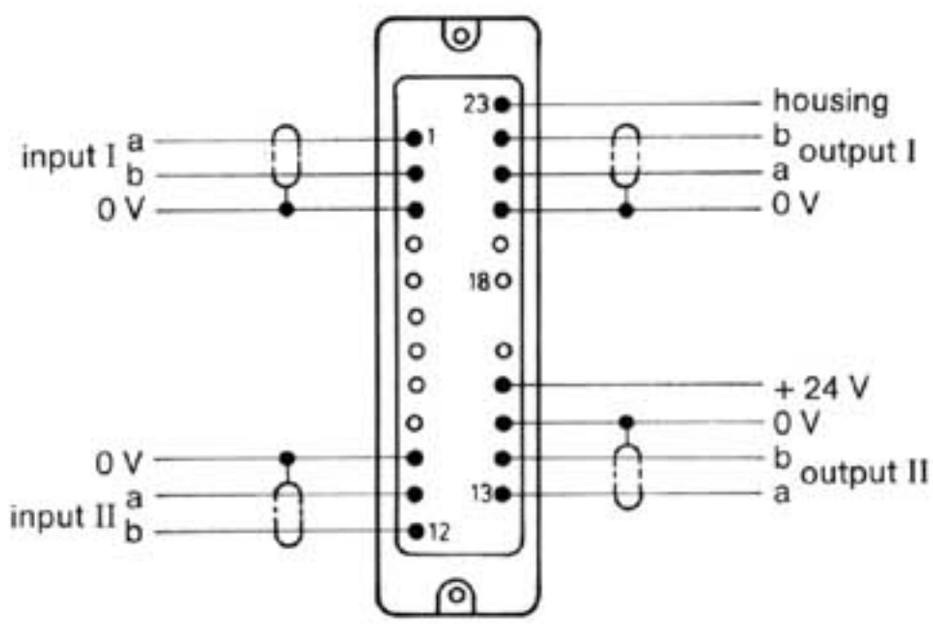
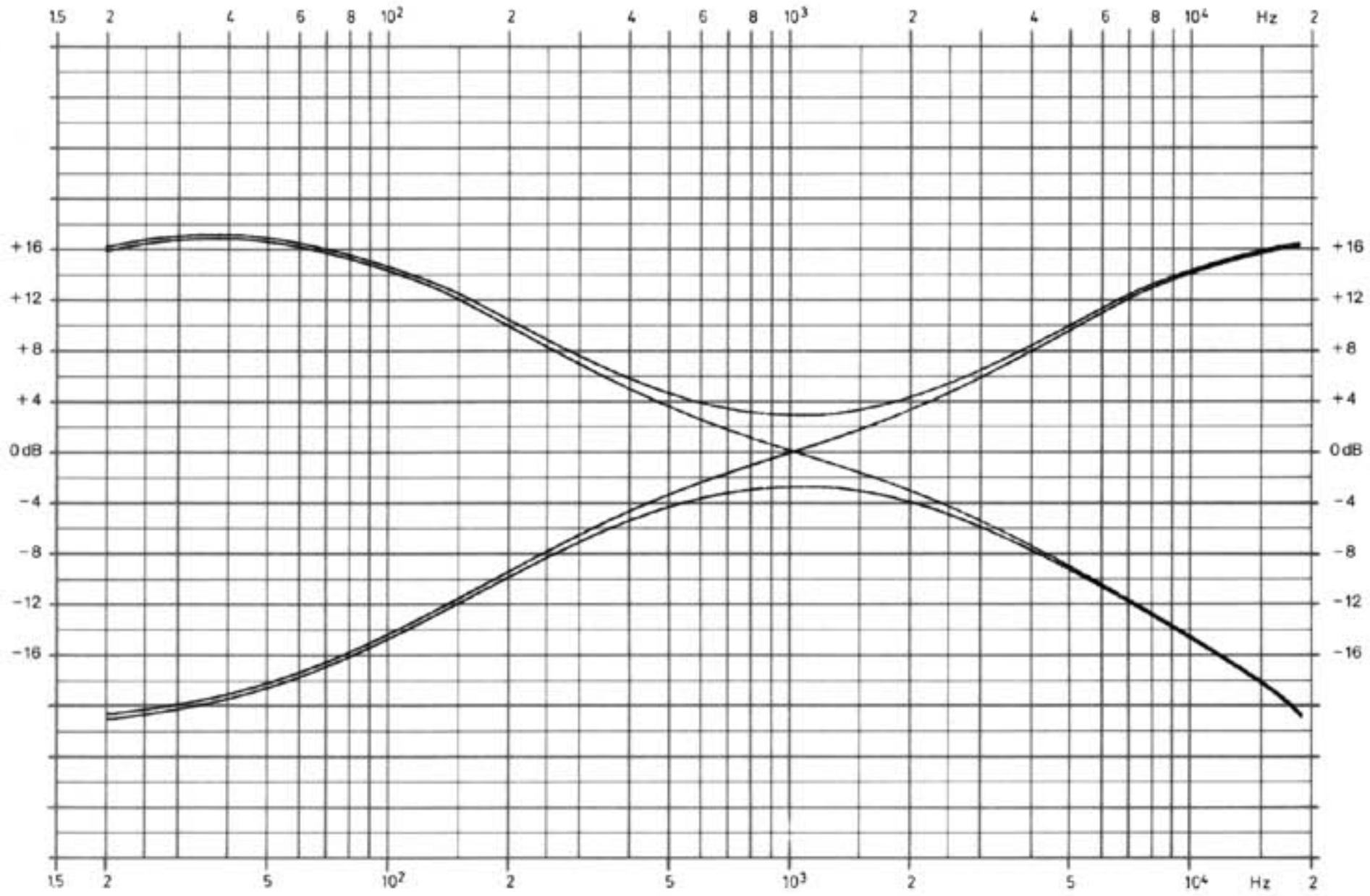
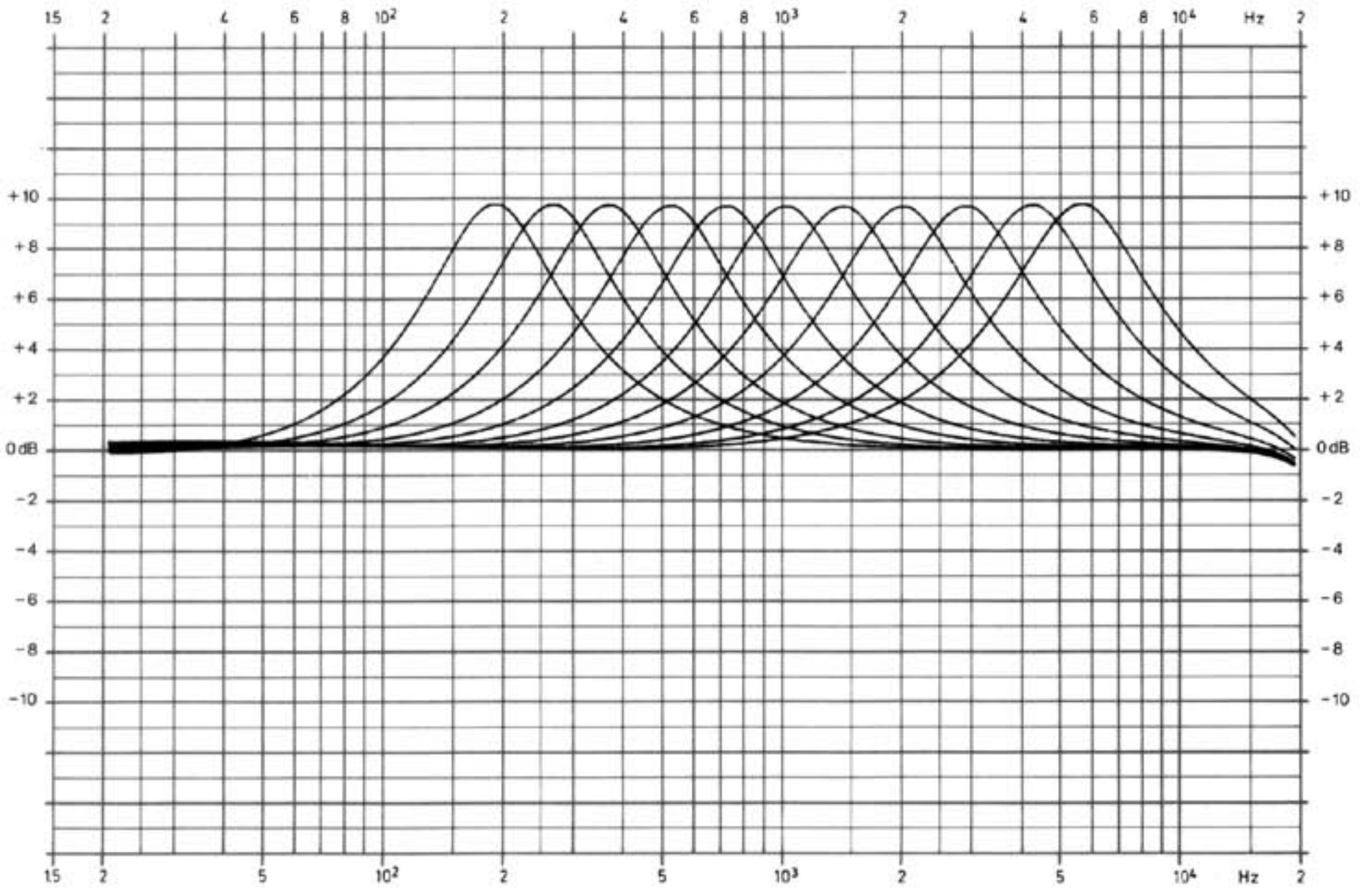


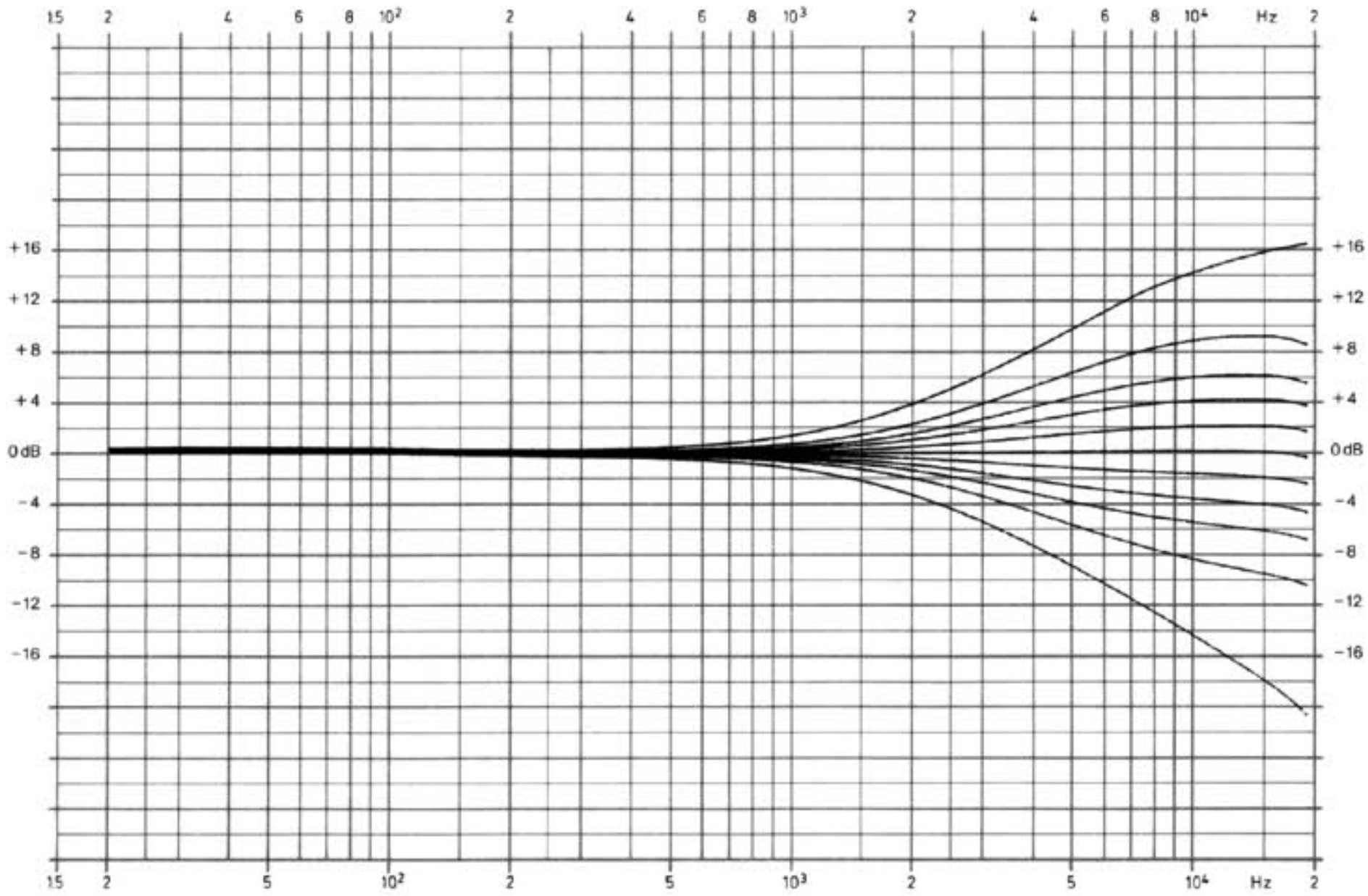
W 495 STB



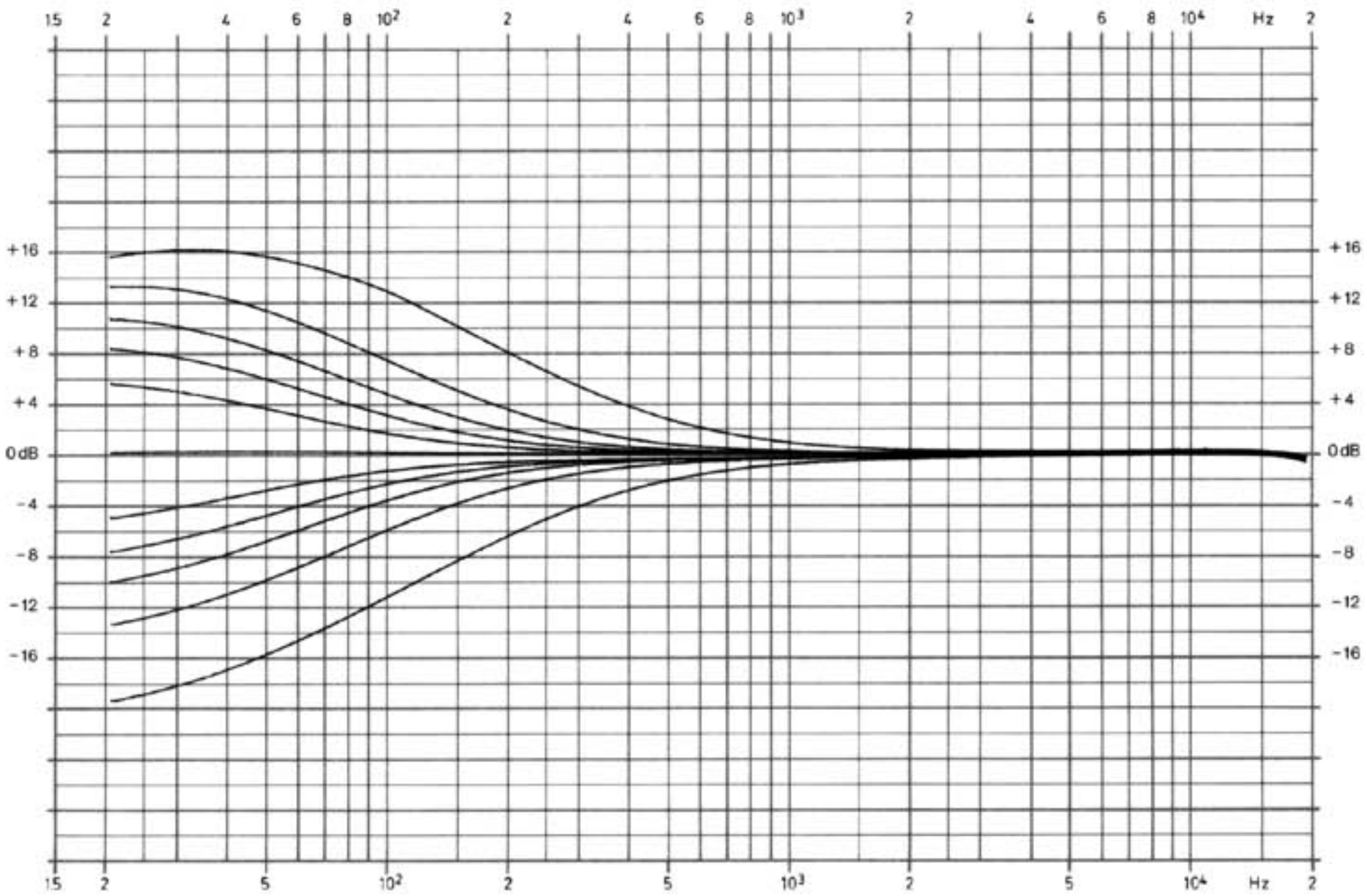
high-low equalizer
set to 100 Hz and 10 kHz
combined adjustments ± 15 dB



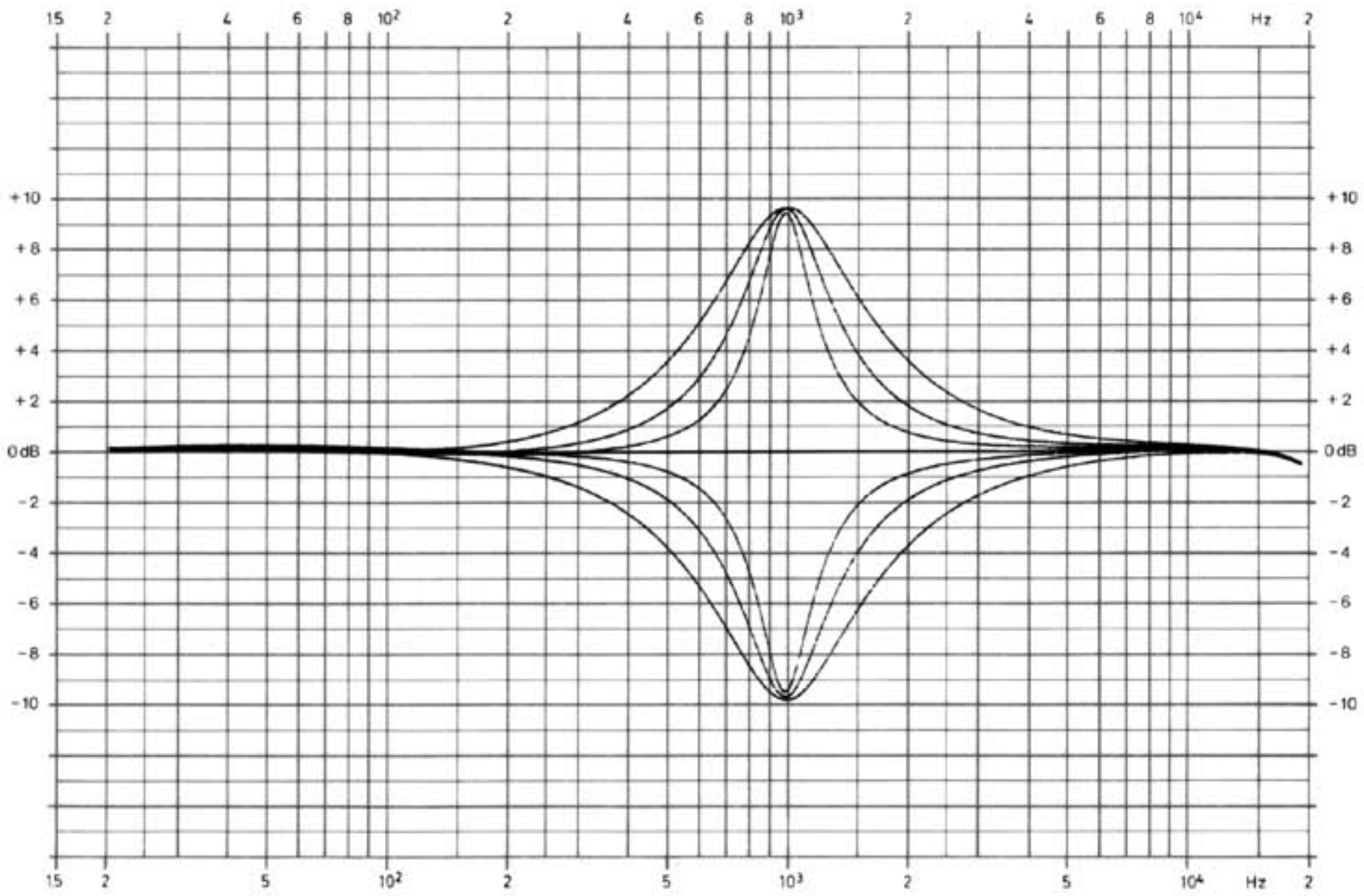
boost equalizer
set to 10 dB
curves 175-250-350-500-700 Hz
1-1.4-2-2.8-4-5.6 kHz



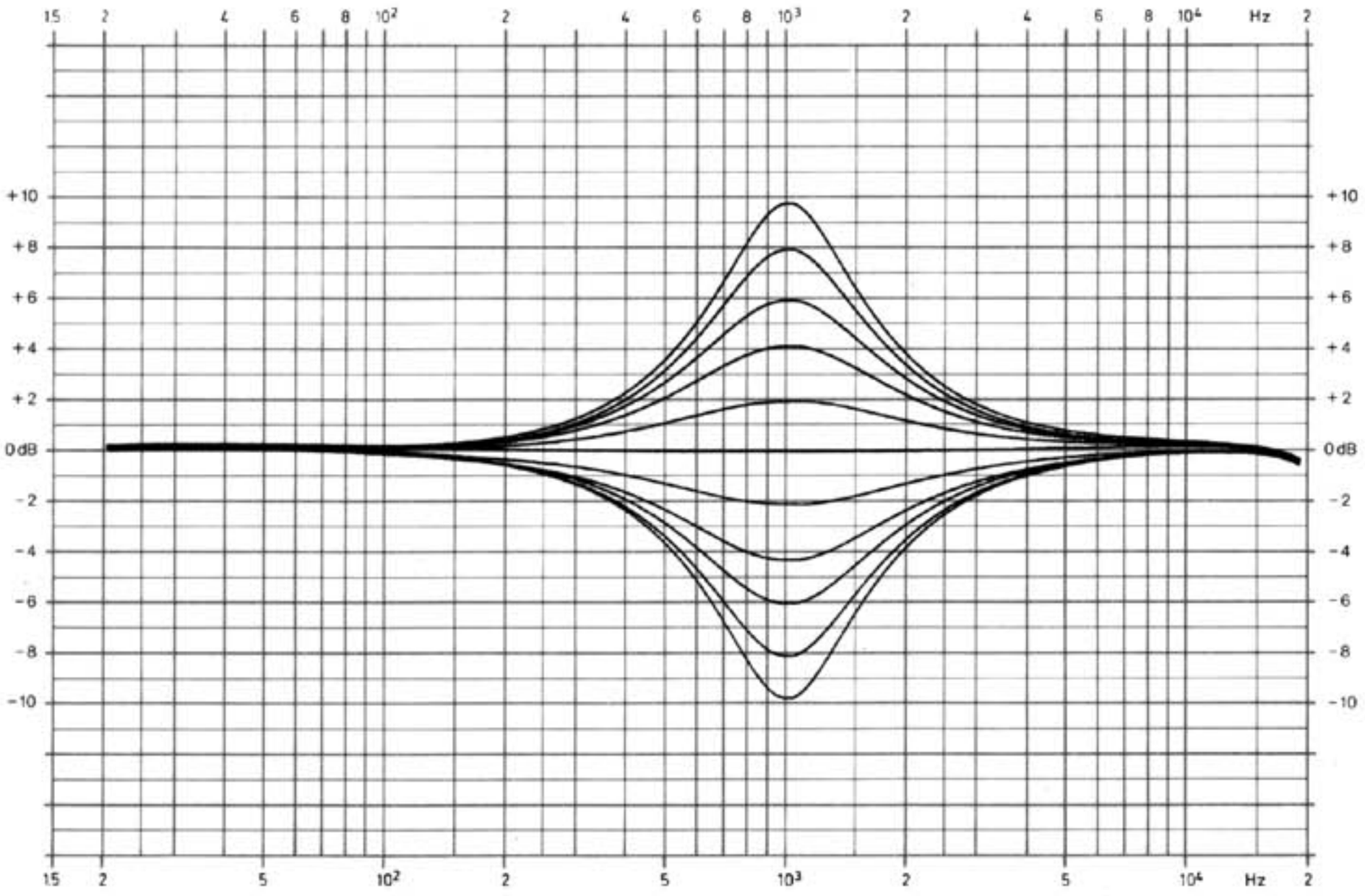
high frequency equalizer set to 10 kHz
boost/cut 2-4-6-9-15 dB
curves for 7 kHz and 14 kHz are shifted along the frequency axis accordingly



low frequency equalizer 60 Hz
boost/cut 2-4-6-9-15 dB
curves for 40 Hz and 100 Hz are shifted along the frequency axis accordingly



boost – cut equalizer set to 1kHz
set to 10dB
bandwidth shown broad – mid – narrow



boost – cut equalizer set to 1kHz
shown in steps of 0-2-4-6-8-10dB