



» NEUMANN.BERLIN

SUBWOOFER KH 810



ENGLISH

KH 810



▶ NEUMANN.BERLIN



**INPUT** **OUTPUT**

LEFT CENTER RIGHT LEFT SUBROUND RIGHT SUBROUND LEFT BACK RIGHT BACK LFE / SUM SUM

7 INPUT GROUND LIFT PIN 1 CONNECTED

8

POWER ON BASS MANAGEMENT (FLASH-LIMIT) ACTIVE

BASS MANAGEMENT DISABLE

REAR CH BASS MANAGEMENT DISABLE

VOLUME CONTROL 5 ACTIVE

TEST SIGNAL ON

100 114 OUTPUT LEVEL [dB SPL at 1m]

SUBWOOFER GAIN

0° 180°

SUBWOOFER PHASE -135° -90° -45° Degrees

PARAMETRIC EQUALIZER ON

GAIN [dB]

FREQUENCY [Hz]

LOW CUT [dB]

0 dB +10 dB LFE GAIN

LFE + SUB-LR (400) LFE + SUB ONLY (800) LFE + SUB ONLY (4200) LFE + SUB ONLY (8000) LFE MODE

2 REMOTE CONTROL AND RS-232



**KH 810**

▶ ACTIVE STUDIO SUBWOOFER  
7.1 CHANNEL HIGH DEFINITION BASS MANAGER

DESIGNED IN GERMANY  
MADE IN IRELAND

**CAUTIONS AND WARNINGS**

All safety and warning notices found in the user manual should be observed. Specifically, do not expose to moisture, liquids, flames, heat, vibration, dust, or direct sunlight. Do not block or cover heatsinks or vents, and leave adequate space for ventilation.

Check mains power voltage selection before connecting to correctly earthed mains power.

There are no user serviceable parts inside this product. Repairs should only be performed by authorized service personnel. Options and accessories are fitted at the user's own risk.

This loudspeaker is capable of producing a sound pressure level in excess of 85 dB. This may cause permanent hearing damage so user caution is recommended. Noise exposure is a function of SPL and time, so observe local regulations when listening at high levels for a long time. Hearing protection may be required.

AC 220-240 V

MAINS VOLTAGE SELECTION

6

AC 100-120 V

SERIAL NUMBER

ON MAINS POWER

OFF

MAINS POWER 12 V DC REMOTE CONTROL

6

CE



## 7.1 High Definition Bass Manager™

▶ 7.1 Inputs/Outputs, compatible with all formats from mono to HD, and beyond

▶ Bass management with 4th order, 80 Hz crossover: compatible with typical systems

▶ Built-in 8 channel system volume control with remote control NRC 1 and RS-232

## Installation flexibility

▶ 4-mode LFE routing: compatible with music and movie industries

▶ Extensive acoustical controls: low cut, parametric EQ, phase (with built-in calibration test tone), input/output level

▶ Independent switchable surround/back channel bass management

▶ Switchable mains voltage with remote power on

▶ Ground lift on all inputs

▶ Sum output for multiple subwoofer systems: higher SPL, decreased system distortion, Plane Wave Bass Array™ (PWBA™) to reduce lateral room effects



## Solid construction

▶ Well-braced cabinet with extremely low tuning frequency minimizes unwanted resonances

▶ Long excursion, low distortion, magnetically shielded 10" driver

▶ Bass compression is minimized using large capacity low turbulence dual reflex ports

▶ Latest efficient low heat dissipation power amplification techniques

▶ Electronics can be remote located (REK 3 + SC nn) for reduced cabling and ease of installation and use



### ▶ Acoustics

- 3 dB free field frequency response	18 ... 300 Hz, ± 3 dB
Pass band free field frequency response	19 ... 300 Hz, ± 2 dB
Self-generated noise	< 20 dB(A) at 10 cm
Sine wave output with a THD < 0.5 % at 1 m	95 dB SPL (> 40 Hz)
Max. SPL in half space at 3% THD (averaged between)	110.7 dB SPL (40 and 90 Hz)
Max. SPL with pink noise in half space at 1m, linear	112 dB SPL

### ▶ Electronics

Amplifier, total cont. (peak) output power*	160 W (200 W)
Controller design	Analog, active
Main channel crossover frequency	80 Hz
Crossover slope	24 dB/oct.
Equalization: Low cut	30 Hz, 0 ... -12 dB
Parametric equalizer:	Bypassable
Gain	+4 ... -12 dB
Frequency	20 ... 120 Hz
Q	1 ... 8
Time of Flight adjustment delay	0 ... -315° in 45° steps
Volume control	Hardware remote or RS-232
Calibration tools	Internal signal generator
Protection circuitry	Peak and Thermo Limiters
Infrasonic filter frequency; slope	6.5 Hz; 12 dB/oct.
Remote control	On a CAT-5

### ▶ Analog Inputs and Outputs

Input/Output channels	7.1 / 7 + Sum
Impedance, electrically balanced	XLR, 13 kΩ
Input sensitivity	-8 and +6 dBu
CMRR	> 60 dB @ 15 kHz
Interchannel isolation (1 kHz), level matching	< -95 dB, ±0.1 dB
Volume control range, resolution	118 dB, 0.25 dB
Dynamic range, THD+N	119 dB(A), better than 0.001%
LFE modes	80+re-routing, 80, 120, fullrange
LFE gain	0 / +10 dB
Gain control	+2 ... -12 dB

### ▶ Displays and Mains Power

Displays and indicators: power on	Red LED (and remote control logo)
limit / clip / digital audio error	Red LED "flashing" (and remote control logo)
bass management active	Green LED
Mains power	220-240 V- or 100-120 V-, switchable
Power consumption – Idle; full output	20 W; 290 W

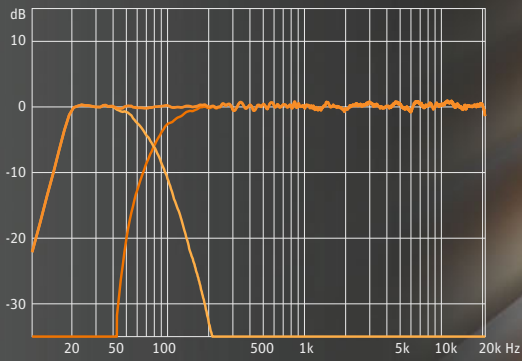
### ▶ Mechanics

Height x width x depth	360 x 330 x 645 mm (14 1/8" x 13" x 25 3/8")
Internal net volume; External	41.5 liters; 76.6 liters
Weight	26.0 kg (57.2 lbs)
Drivers	Magnetically shielded
Woofers	265 mm (10")
Cabinet surface finish, color	Painted, Anthracite
Baffle cover	Included metal grille

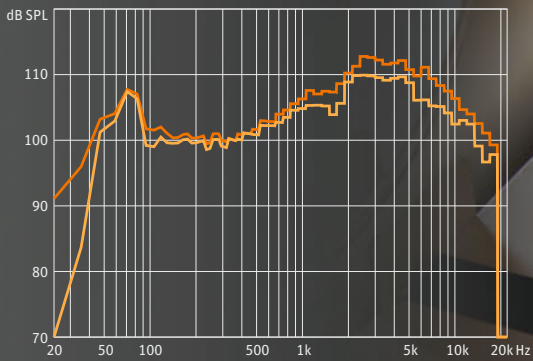
\* THD+N < 0.1 % with limiter deactivated



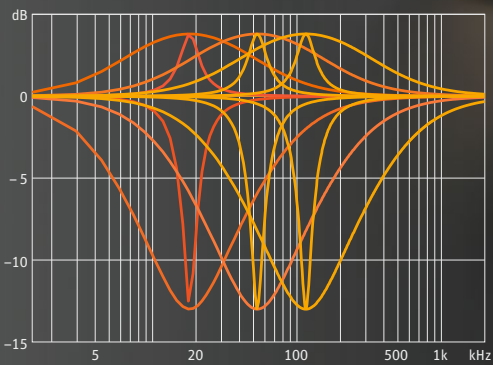
### Frequency Response for KH 810 + KH 120



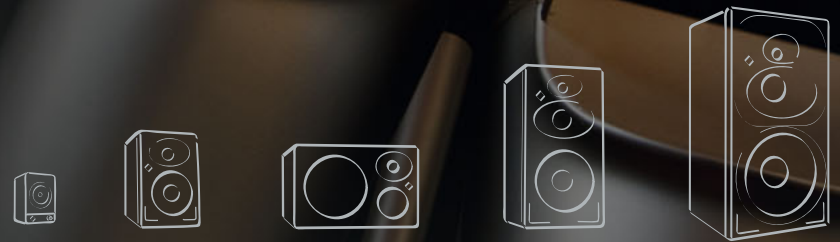
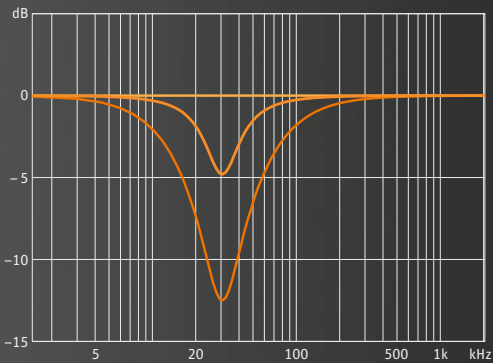
### Maximum SPL for KH 810 + KH 120



### KH 810 Parametric EQ



### KH 810 Low Cut Filter



## KH 810 – a new subwoofer for the Neumann KH Line

### Order Info

Product	Art. Number
KH 810 10" subwoofer with 7.1 Bass Manager	503951



Please refer to the website [www.neumann.com](http://www.neumann.com) for additional technical information. Furthermore, look for the extensive range of accessories that turn individual products into a complete monitoring system. Detailed mechanical drawings are also available together with remote electronics kits.