



Move up to  
**7.1**  
High Definition

**As consumer technology** advances at ever faster rates, professional technology increasingly finds itself trying to keep up. An example of this is the advent of HD-DVD and Blu-ray High Definition formats that has increased the audio channel count to 7.1. There are currently no monitoring systems on the market with built-in 7.1 signal handling.

**The O 870 and O 810** are an answer to the most recent evolution of transmission formats. Klein + Hummel's two new subwoofer packages offer a new 7.1 High Definition Bass Manager™. This is compatible with all standard consumer formats from mono through to the latest 7.1 HD systems. Eight channels of analog or an optional 8-channel, 24-bit, 192 kHz digital input card ensures flexible interconnectivity for modern studios. Four-mode LFE-channel processing guarantees compatibility across all formats and industries. Forth-order crossovers and flexible acoustical controls allow for seamless system integration. Built-in volume control and a hardware remote control allows for centralized system control independent of the source, and the electronics can be remote located to reduce cabling.

**The latest amplifier technology** and acoustical components have been used to ensure the most accurate sound reproduction possible. Robust drivers, a rock-solid cabinet, and carefully designed ports guarantee a tight, articulate, and distortion-free low frequency reproduction, even at high replay levels. Using the sum output, Plane Wave Bass Array™ (PWBA™) techniques acoustically improves lateral consistency in the listening area. The bass of both models extends down to 18 Hz.

**The O 900 and O 800** continue to be offered in addition to the new O 810 and O 870 subwoofers. These two subwoofers take a slightly different approach. The O 900 is designed to be added to the O 500 C to make a 4-way column system: the subwoofer output signal of the O 500 C is connected to an external amplifier which can be remote located. The O 800 is a very cost effective solution for bass managing three channels to extend the response of the front loudspeaker. Both the O 900 and O 800 can be used to only reproduce the LFE channel in multichannel systems. Alternatively a Pro M 1012 can be used to provide flexible external bass management and system control of up to 10 audio channels and 12 loudspeakers: subwoofer signals are generated and then connected directly to the subwoofer.

**All of Klein + Hummel's subwoofers** are designed to complement Klein + Hummel's extensive range of monitors. Subwoofers can be used on their own, or daisy-chained to make larger systems capable of higher SPL. They can be used in music, broadcast, and post production studios for tracking, mixing, and mastering. They can be positioned next to a wall or flush mounted into a wall due to the front mounted port, and can be mixed freely in multichannel systems with other loudspeakers from the Klein + Hummel range.



Flexible bass management modes

8 inputs with ground lift, 7 main outputs and a sum out

Built-in 7.1 multichannel remote volume control

Four LFE modes for all format types and system configurations



Extensive acoustical controls including a parametric equalizer

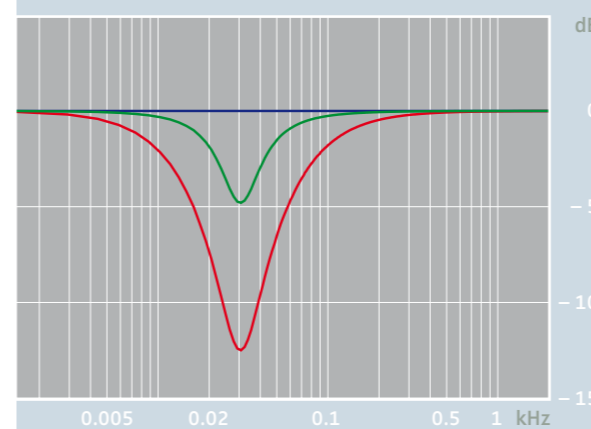
Switchable mains voltage and remote power on

## 7.1 High Definition Bass Management on the O 870 and O 810

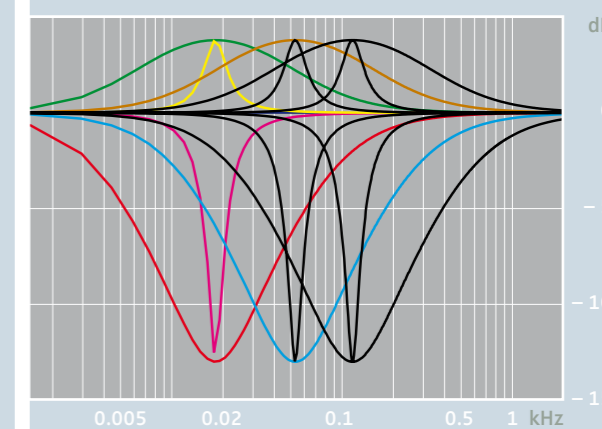
### Features

- 7.1 Channel High Definition Bass Management™ compatible with all formats from mono to 7.1
- Bypassable 4th order 80 Hz active crossover for maximum compatibility with consumer reproduction
- 0 and +10 dB LFE gain and 4-mode LFE processing:
  - ▶ LFE to subwoofer and left/right
  - ▶ LFE to subwoofer only up to 80 Hz
  - ▶ LFE to subwoofer only up to 120 Hz
  - ▶ LFE to subwoofer with no filtering – for daisy chaining subwoofers and external signal processing systems
- Independent control of bass management for front and back channels
- System wide volume control via optional hardware remote controls (SRC 1 and SRC 2) or RS-232
- Acoustical controls adapt the subwoofer's response to the environment
  - ▶ Output level
  - ▶ Low cut
  - ▶ Parametric equalizer
  - ▶ 45° step phase control with a built-in test signal
- Larger systems and Plane Wave Bass Arrays™ maybe constructed using the Sum output
- Electronics can be remotely powered on with two modes of operation (0 V and 12 V trigger)
- Integrated electronic limiter for amplifier and driver protection
- Low heat dissipation amplifiers
- Optional 8-channel (4 x AES3 / AES3id / S/P-DIF) digital input card, supporting IEC 60958-1 user bit volume control
- Remote Electronics Kit (REK 2) and Subwoofer Cables (SC nn) for less cabling and convenience of use

Low cut



Parametric Equalizer





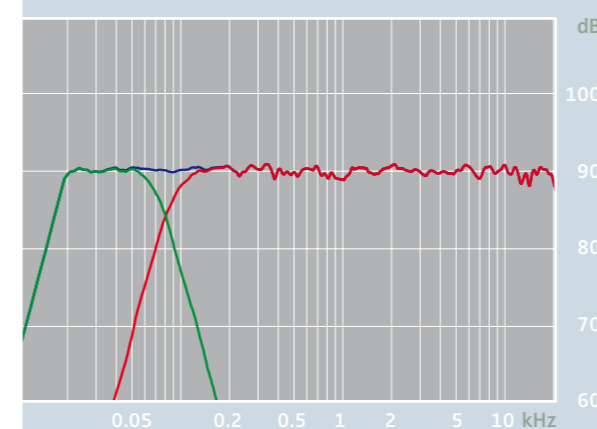
**The O 870 active studio subwoofer**, with built-in 7.1 High Definition Bass Management™, offers all the features required in today's modern studios. Extensive signal processing and extended low-frequency output at high SPL presents the opportunity to make very large multi-channel audio systems.

**Features**

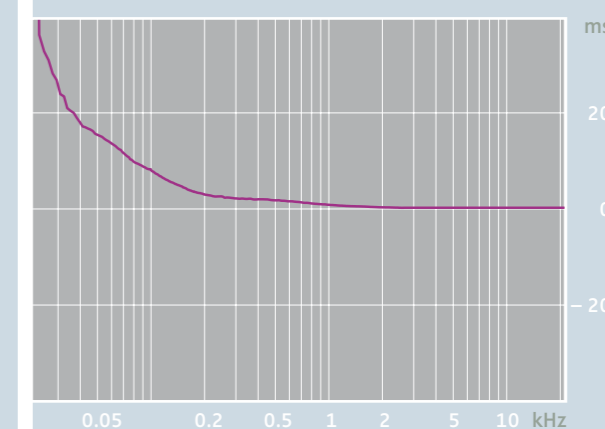
- Low frequency extension for main loudspeakers down to 18 Hz
- Low distortion magnetically shielded long-throw drivers
- Reduced bass compression at high SPL from generously proportioned bass reflex ports
- A main loudspeaker can be mounted onto an O 870 to make a large 4-way column system
- Allows main loudspeakers to play louder and with lower distortion
- Large system with 6 dB higher output than O 810
- Wooden cabinet with a tough painted finish (anthracite or silver) and high density rubber isolating feet
- Excellent self-damping properties leading to minimal cabinet resonances
- Cabinet look conforms to the family design
- Accessories: Digital input card, Remote controls and cables, Remote electronics kit and cables, Flight case and Various mounting accessories

**O 870**  
High Definition Active  
Studio Subwoofer

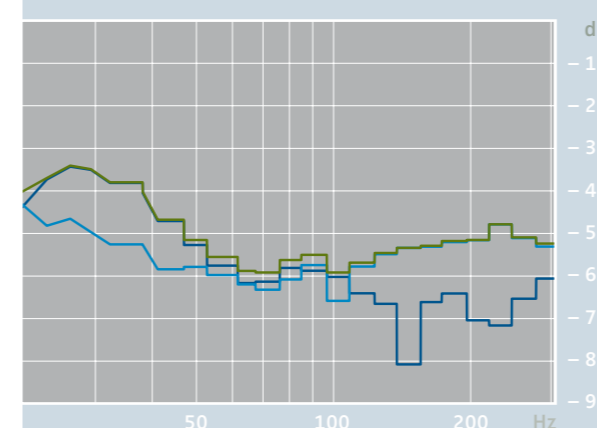
Frequency response O 410 C with O 870



Group delay O 410 C with O 870



THD at 95 dB SPL at 1 m ■ total ■ 2nd ■ 3rd



MAX. SPL O 870 at 1 m at 1% ■ and 3% ■ THD

