The Genelec 8020B is a very compact bi-amplified active monitor system with performance comparable to much larger systems. The 8020B excels in applications where space is at a premium, taking full advantage of the unconventional design and advanced technologies of Genelec’s 8000 Series loudspeaker range. The all-aluminium Minimum Diffraction Enclosure™ (MDE™) and advanced Directivity Control Waveguide™ (DCW™) technologies are carefully matched with complementing advanced amplifier and electronics circuitry and the latest drivers. Bass response reaches down to 65 Hz (-3 dB) with low distortion due to a uniquely new rear reflex port design. The system’s excellent directivity characteristics and accurate imaging together with its compact size and flexible mounting options make the 8020B the perfect monitoring tool for a wide range of applications.

The 8020B has been specially designed to have a sufficient LF extension for a variety of situations. However if greater SPL’s and a lower cutoff frequency are required, it can be complemented with Genelec 7050B subwoofer, which has a lower cutoff point of 25 Hz.

The 8020B is very easy to set up and use, the only connections required are the mains supply and the line level input. The input is made via a balanced female XLR connector.

The integrated design allows the amplifiers and the drivers to be calibrated as a single unit, eliminating the effects of component tolerances and ensuring consistent quality.

The amplifier unit contains an active crossover, a feature more commonly used in large and expensive control room monitors. This is the ideal method for dividing the input signal between the driver units. The active crossover allows the overall response of the system to be optimized to an extent impossible with a passive system.

To maintain uniform frequency balance in differing acoustic environments, special calibrated controls are included in the active crossover network. These controls include “treble tilt”, “bass tilt” and “bass roll-off” switches.
MDE™ and DCW™ Technologies

The Minimum Diffraction Enclosure™ (MDE™) Technology increases the performance of the Genelec 8000 Series loudspeakers by minimizing edge diffraction and improving frequency and power response. The edges of the enclosure are rounded and blend seamlessly into the enlarged Directivity Control Waveguide™. Surface discontinuities that cause diffraction are minimized. The curved walls of the die-cast aluminium enclosure are thin but rigid, allowing maximum internal volume while also providing improved EMC shielding and heat dissipation for the amplifiers. Locating the reflex port to the back of the enclosure allows a generously dimensioned reflex port for minimal port noise and excellent bass articulation while freeing the front baffle for an enlarged and optimized DCW™.

The advanced DCW™ is designed to match the performance of the drivers in terms of both frequency response and directivity. This results in a smoother overall frequency response on and off axis. In addition, the improved directivity control causes more direct sound and less reflected sound to be received at the listening position, providing improved imaging and reducing the effects of differing control room acoustics. The DCW™ improves the drive unit sensitivity by +2 to +6 dB (depending on the particular application), thus also increasing the available system maximum sound pressure level.

Mounting

The 8020B offers several mounting options: The vibration insulating Isolation Positioner/Decoupler™ (Iso-Pod™) table stand allows tilting the speaker for correct alignment of the acoustic axis. The stand can be attached to three mounting points allowing vertical and symmetrical horizontal positioning. On the base of the monitor is a 3/8” UNC threaded hole which can accommodate a standard microphone stand. On the rear there are two M6x10 mm threaded holes for an Omnimount® size 20.5 bracket.

Colours

The 8020B cabinet has a durable painted surface in Black, Silver or White.

Guarantee

The 8020B is guaranteed for a period of two years against faults in materials or workmanship.
Figure 5: The upper curve group shows the horizontal directivity characteristics of the 8020B measured at 1 m. The lower curve shows the system’s power response.

Figure 6: The curves above show the effect of the “bass tilt”, “treble tilt” and “bass roll-off” controls on the free field response.

**SYSTEM SPECIFICATIONS**

- **8020B**
  - Lower cut-off frequency, –3 dB ≤ 65 Hz
  - Upper cut-off frequency, –3 dB ≥ 21 kHz
  - Free field frequency response 66 Hz – 20 kHz (± 2.5 dB)
  - Maximum short term sine wave acoustic output on axis in half space, averaged from 100 Hz to 3 kHz @ 1 m ≥ 96 dB SPL
  - Maximum long term RMS acoustic output in same conditions with IEC weighted noise (limited by driver unit protection circuit) @ 1 m ≥ 95 dB SPL
  - Maximum peak acoustic output per pair with music material @ 1 m ≥ 105 dB
  - Self generated noise level in half space at 1 m on axis (A-weighted) ≤ 10 dB
  - Harmonic distortion at 85 dB SPL at 1 m on axis
    - Freq: 50…100 Hz
    - > 100 Hz
    - < 3 %
    - < 0.5 %
  - Drivers
    - Bass 165 mm (4") cone
    - Treble 19 mm (3/4") metal dome
    - Both drivers are magnetically shielded
  - Weight 3.7 kg (8.1 lb)

**DIMENSIONS**

- Height including Iso-Pod™ table stand 242 mm (9¹/₂")
- Height without iso-Pod™ table stand 230 mm (9³/₄")
- Width 151 mm (6")
- Depth 142 mm (5¹/₈")

**AMPLIFIER SECTION**

- **8020B**
  - Bass amplifier short term output power 20 W at 8 Ohm load
  - Treble amplifier short term output power 20 W at 8 Ohm load
  - Long term output power is limited by driver unit protection circuitry
  - Amplifier system THD at nominal output < 0.08 %
  - Mains voltage 100, 120, 220 or 230 V according to region
  - Voltage operating range ±10 %
  - Power consumption (average)
    - Idle 5 VA
    - Full output 50 VA

**CROSSOVER SECTION**

- **8020B**
  - Signal input connector XLR female, balanced 10 kOhm
  - Input level for 100 dB SPL output at 1 m -6 dBu at volume control max
  - Sensitivity control range -80 dB relative to max output
  - Crossover frequency, bass/treble 3.0 kHz
  - Treble Tilt control operating range 0 to –2 dB @ 15 kHz
  - Bass Tilt control operating range in 2 dB steps From 0 to –6 dB @ 100 Hz
  - Bass Roll-Off control –6 dB step @ 85 Hz (to be used in conjunction with a 7050B subwoofer)

The ‘CAL’ position is with all tone controls set to ‘off’ and the input sensitivity control to maximum (fully clockwise).

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