



Musikelectronic Geithain

The worldwide unique supplier of monitor loudspeakers of cardioid radiation characteristic in the bass range

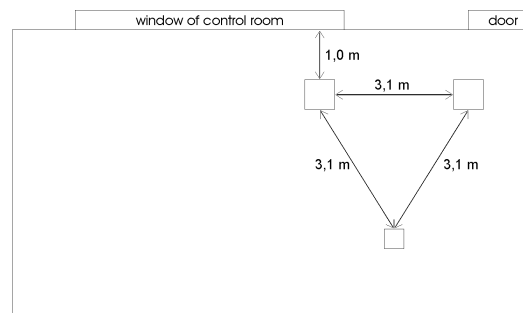
The monitor loudspeaker RL 901 is on the spot available with cardioid characteristic within the frequency range of 30 through 250 Hz. The backward attenuation amounts more than 10 dB. Therefore, low-frequency room modes are getting less excited. By this attribute the setting up position becomes less critically, so that the loudspeaker arrangement in small rooms is less problematically. The waviness of the operation sound level curve at the listening position can be essentially reduced by this method. Loudspeakers which are already in the hands of our customers, can be reconstructed subsequently.

The type designation is RL 901K.

Comparison of the operation sound level curves of the loudspeakers RL 901 and RL 901K, measured with a television sound control room.

Conditions of measurement:

- 5 measuring points, 0.5m around the listening position
- right channel
- left channel
- RL901 K with cardioid characteristic
- RL901



Sketch of Control Room

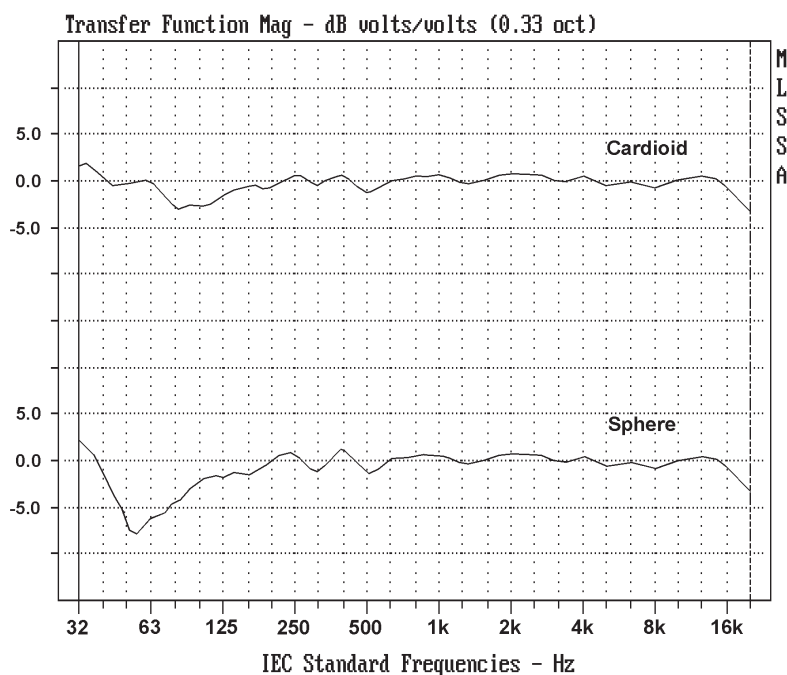


Figure 1

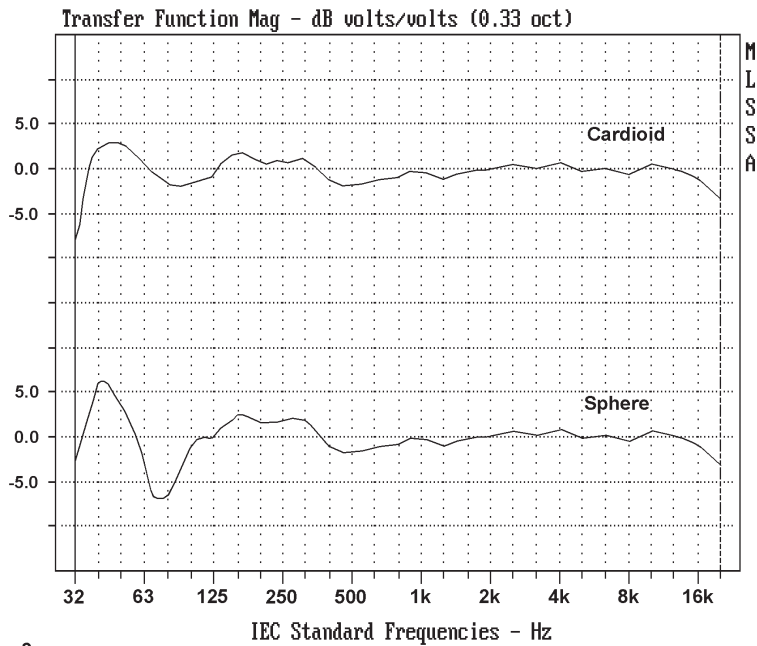


Figure 2

Control room 4 · RL 901 Cardioid /Sphere · left side · 12.02.2002

Within the low-frequency range the sound wave length is about in the measure of the room dimensions, therefore depressions of the operation sound level curve at the listening position cannot be equalized by corrections of the frequency response of the loudspeaker by simple methods. In figures 1 and 2 (sphere) the typical frequency response of a system with omnidirectional characteristic can be seen.

However, an improvement can be reached by a more directed irradiation. As it can be shown by the example of a television control room, with such a cardioid radiation characteristic the transfer function remains within the tolerance range of ± 3 dB (see figures 1 and 2, Cardioid).

RL901K directional characteristic within the free field

Conditions of measurement:

- Free field 100m limiting areas
- Height of the radiator 1.40 m
- Radiator turned horizontally
- Microphone distance $r = 2$ m

