DYNAUDIO®

TECHNOLOGY UNLIMITED

THE VARIOVENT IS AN OPENING IN THE LOUDSPEAKER-BOX WHICH IS PADDED WITH DAMPING MATERIAL. IT CONSISTS OF AN OPEN PLASTIC CABINET, IN WHICH THE AMOUNT AND THICKNESS OF THE DAMPING MATERIAL MAY BE ADJUSTED TO THE INDIVIDUAL CONSTRUCTION OF THE LOUDSPEAKER.

Physically, the VARIOVENT is a flowresistance, damping the resonance like a DC-resistance in the oscillating circuit which results in a more precise bass response (excellent transient response) and better woofer quality.

The impedance maximum at the resonance point will be reduced by at least 50% compared to a sealed cabinet (fig. 2). Consequently, the amplifier is able to give more power in the lower range. The oscillation of the cone after a strong pulse is aperiodically damped (fig. 3 and 4). A cabinet construction with VARIOVENT must not be mistaken for a bass-reflex box. This often is inclined to a voluminous and inaccurate bass response. To the contrary, the VARIOVENT causes a more clear and well defined bass response.

Fig. 1

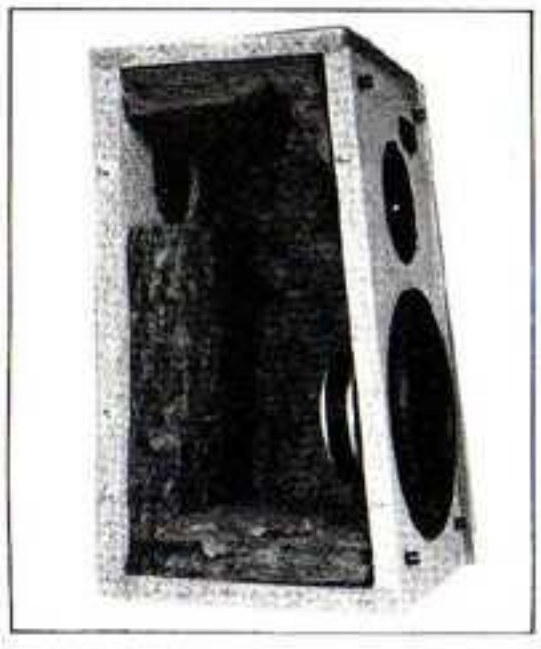
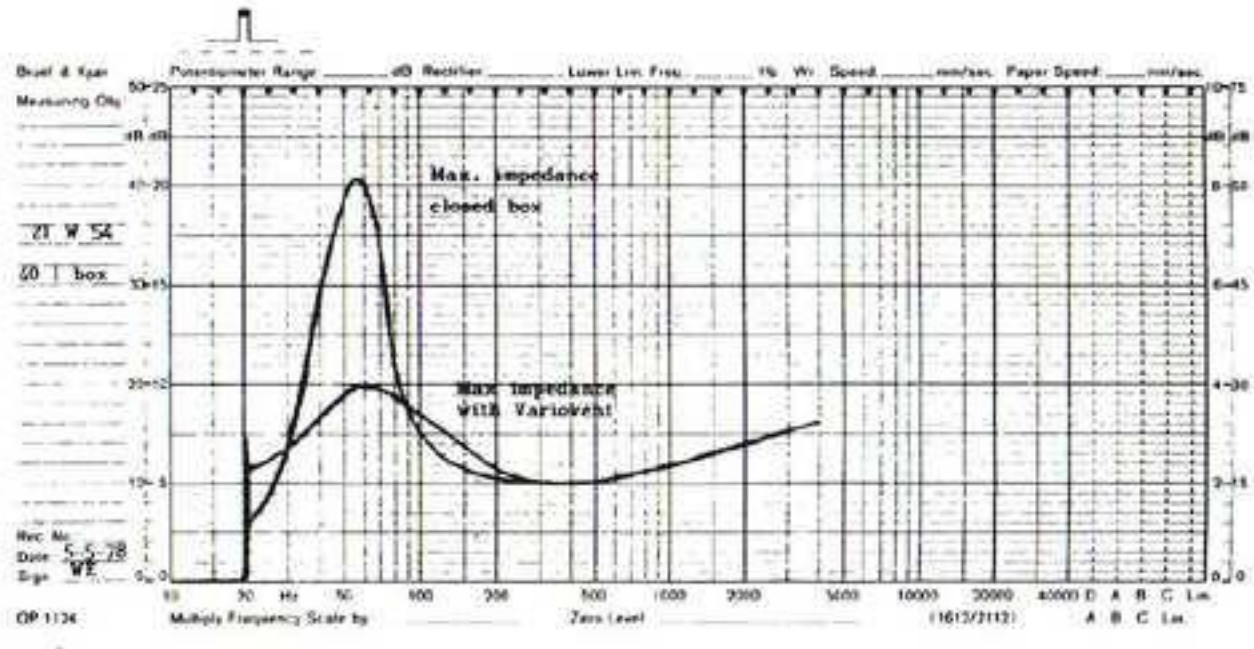


Fig. 2



The use of a VARIOVENT is rather unproblematic, as no delicate tuning is necessary, compared to transmissionline or bass-reflex boxes. Therefore, it is also to be recommended for do-it-yourself use. In any case, an improvement of the woofer characteristics in the above-mentioned sense will be obtained. The best way of mounting the VARIOVENT will be the backside of the cabinet (fig. 1). The diameter of the hole is 110 mm. About 2/3 of the cabinet volume ought to be filled with damping material, by which a channel between the back of the woofer and the VARIOVENT must be left free. For cabinet volumes up to 50 litres, 1 VARIOVENT is necessary. For cabinet volumes up to 80 litres, 2 VARIOVENTS, and for cabinet volumes of more than 80 litres, 3 VARIOVENTS are necessary.

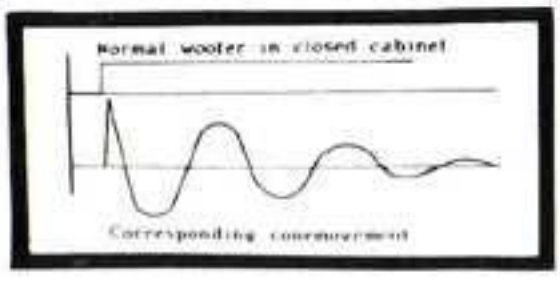


Fig. 3

Fig. 4