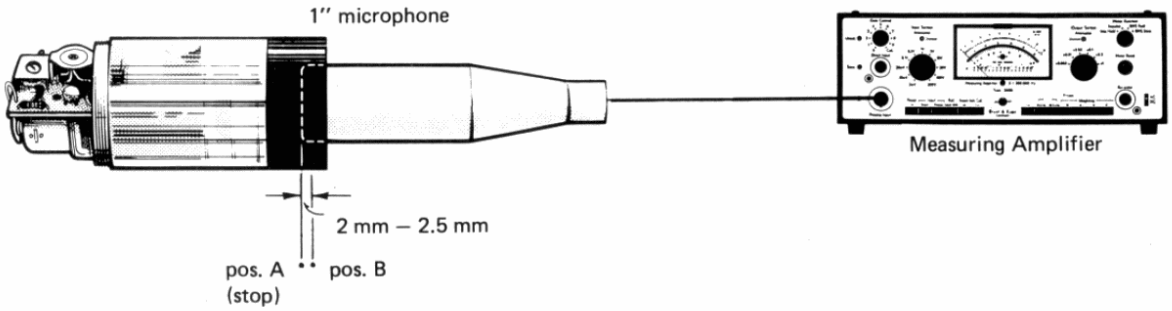
radiomuseum.org: Sound Level Calibrator - Kalibrator für Schallpegelmesser 4230

Checking Procedure



The Equivalent Volume

The equivalent volume may be checked by means of the measuring set-up shown in the figure.

a) With the microphone in pos. A the calibrator is started and the deflection of the measuring amplifier is noted.

b) Move the microphone to pos. B. The resulting change of volume (2.25 mm → ΔV = 1 cm^3) should not alter the deflection more than 0.5%.

If the change is more than 0.5% adjust the core of the coil L 1.

The Sound Pressure

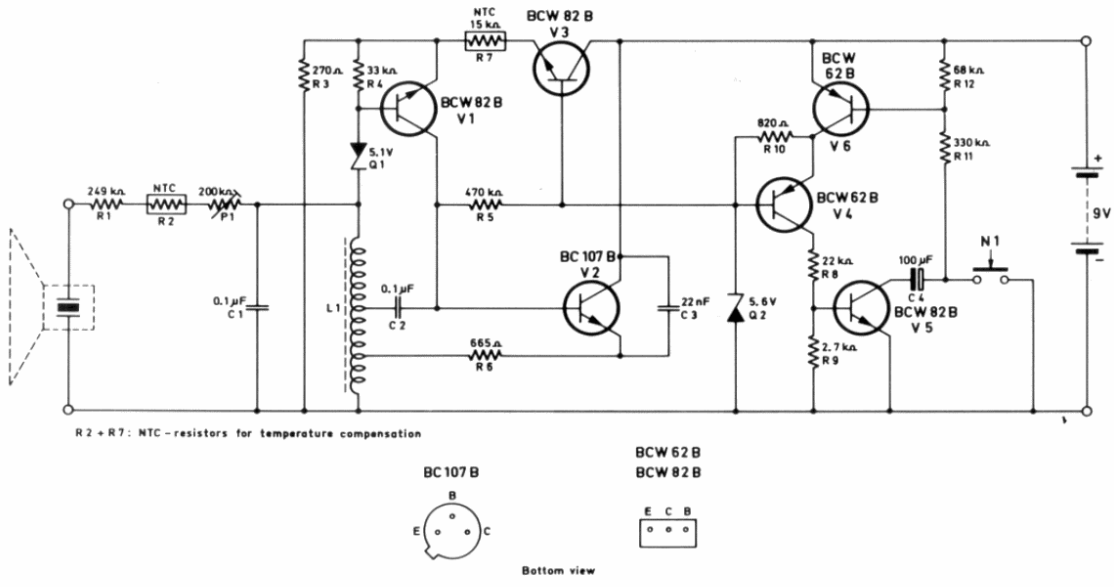
may be checked by comparison with a pistonphone Type 4220. However, attention must be paid to measuring errors that may arise because of the differences in level (124 dB and 94 dB) and frequency (250 Hz and 1000 Hz), including non-linearity in the pressure response of the microphone. Adjustment is made by alignment potentiometer P 1.

If the calibrator is adjusted to a level different from 94 dB, the temperature characteristic may change.

Adjustment should be made at a temperature between 20°C and 25°C, if the calibrator is expected to be in agreement with the B & K specifications.

For a new Battery the 1 kHz Signal should last up to approx. 1 minute, and typically 20 – 40 sec. Short duration of the signal indicates inadequate battery power.

Circuit Diagram



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