

## EFFECTS OF VARIATION OF SUPPLY VOLTAGE ON THE SENSITIVITY OF THE BL MICROPHONE

The attached graph shows the effect of supply voltage ( $V_S$ ) on BL microphone output over the voltage range 0.9 to 20.0 volts d.c.

The "nominal" line illustrates the performance of the "average" BL microphone coming off of our production lines. Please note, however, that variability in components and assemblies yield a *range* of possible sensitivity changes for each supply voltage. This chart is referenced to our standard specification of a 1.3 volts d.c. supply voltage and indicates the possible *change* of output for any single BL microphone as compared to its 1.3 volts sensitivity.

As an example, changing  $V_S$  from 1.3 volts to 3.0 volts will increase the 1KHz output voltage by 0.3 dB to 2.4 dB for 99% of the BL microphones presently produced. However, 65% to 70% of the product will change

only between 0.4 dB and 1.5 dB for this same  $V_S$  change.

If the BL microphone is to be used at a lower supply voltage, 0.9 volts for example, the output loss (relative to the 1.3 volt output) could range from 0.5 to 6.5 dB (normally 1.5 dB) for 65% to 70% of our production, and the loss could exceed 10 dB for about 12% to 15% of our present production.

We guarantee, by 100% testing, that all BL microphones will not exhibit more than a 3 dB loss at 1.1 volts dc compared to the 1.3 volts output for that unit.

### IMPORTANT NOTE:

The graph is useable only for general application perspective and must not be used to generate specifications or limits.

## 1 KHz SENSITIVITY CHANGE VS DC SUPPLY VOLTAGE

For All BL Models  
(Data Based on Random Sampling)

