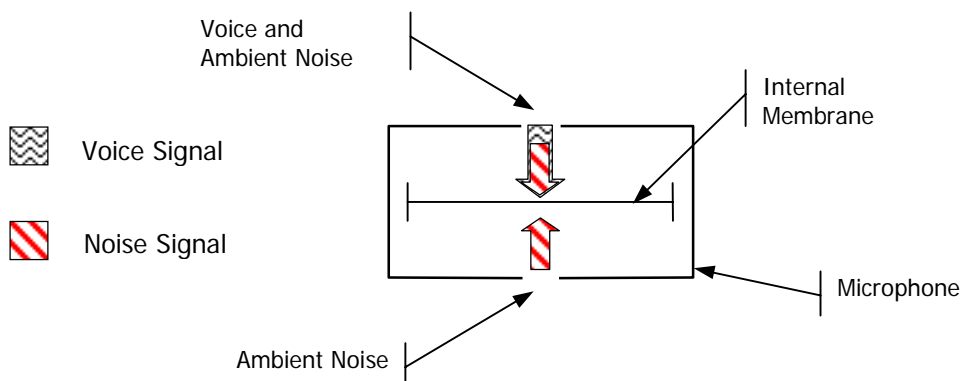


Noise Canceling Microphone

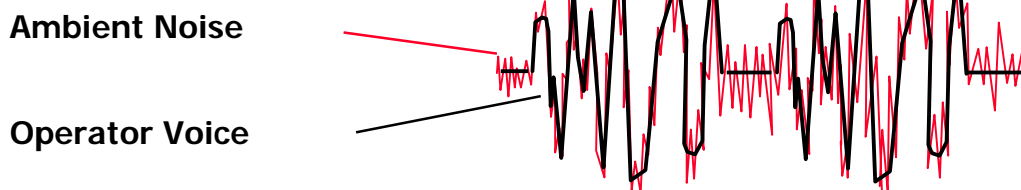
The “Noise Canceling” microphone functioning is based on the mechanical wave canceling principle of two opposite phase waves. In order to exploit this principle, the microphone has a special construction of the transducer’s membrane housing which is provided with a double opening (see fig.1) which allows the input of the sound vibration by two opposite sides. Since an ambient noise with a higher than 1.5m origin respect to the microphone position arrives on it with a sonorous pressure approximately equal on both sides, this takes, as described above, to the canceling of its effect on the microphone membrane.

Fig. 1



Analyzing the electrical signal at the output of a traditional microphone can be noticed that the ambient noise (red trace) is overlapped to the operator’s voice (black trace), see Fig. 2.

Fig. 2



Analyzing the electrical signal at the output of a “Noise Canceling” microphone can be noticed that the ambient noise (red trace) is reduced of approximately 90% and the operator’s voice turns out clear and more comprehensible. (See fig. 3).

Fig. 3

**Noise Canceling result**

