

# Microphone Terminology

- **Signal-to-noise Ratio or SNR:** The ratio, normally expressed in dB, between the level of the desired signal and the level of unwanted noise.
- **Sound Pressure:** Fluctuations in air pressure due to the presence of a sound. This sound pressure is expressed in units such as Pascals, microbars, or dynes/cm<sup>2</sup>.
- **Sound Pressure Level or SPL:** A standard measurement of the amplitude of sound, expressed as the ratio in decibels between the measured sound pressure and standard reference of 0 dB SPL = 20 microPascals = 0.0002 dynes/cm<sup>2</sup>.
- **Subcardioid:** Describes the pickup pattern of one type of directional microphone, which is only modestly directional but retains some degree of rejection of sounds arriving from the sides and rear. Provides a somewhat broader and less well-defined pattern than does a standard cardioid microphone.
- **Suspension:** The mounting for a microphone capsule, generally designed to provide some degree of mechanical isolation between the capsule or transducer and the microphone body in order to reduce handling noise.
- **T.H.D.:** Abbreviation for Total Harmonic Distortion. The sum total of all undesired harmonic energy present in an output signal, usually expressed as a percentage of the total output signal.
- **"3:1 Rule":** ("3-to-1 Rule") Rule-of-thumb ratio for the minimum distance mics should be spaced apart ("3 times X"), compared to their distance from the sound source ("X").
- **Transducer:** In audio, a device to convert sound to electrical energy or vice versa. Microphones and loudspeakers are two type of transducers. Also refers to the portion of a microphone that is directly involved with conversion of sound energy to electrical energy.
- **Transformerless:** An electronic circuit capable of outputting or receiving a balanced audio signal without the use of a magnetic transformer. Transformerless circuits generally have wider frequency response and lower distortion than circuits using transformers.
- **Unbalanced:** Refers to a signal-carrying circuit with one electrical conductor and an overall metallic shield. Also referred to as an unbalanced line.
- **Unidirectional:** Describes a device which radiates or receives energy more efficiently from a single direction than from all other directions.
- **X/Y Stereo Microphone:** A type of stereo microphone where two directional transducers are mounted such that their patterns are pointed outward at angles of approximately plus and minus 45-to-60 degrees from the front of the microphone.
- **XLR Connector:** Designation for a type of connector commonly used in professional audio. For balanced audio cables, particularly for microphones, the 3-pin versions, male and female, are most often used.
- **Z:** Symbol for impedance.