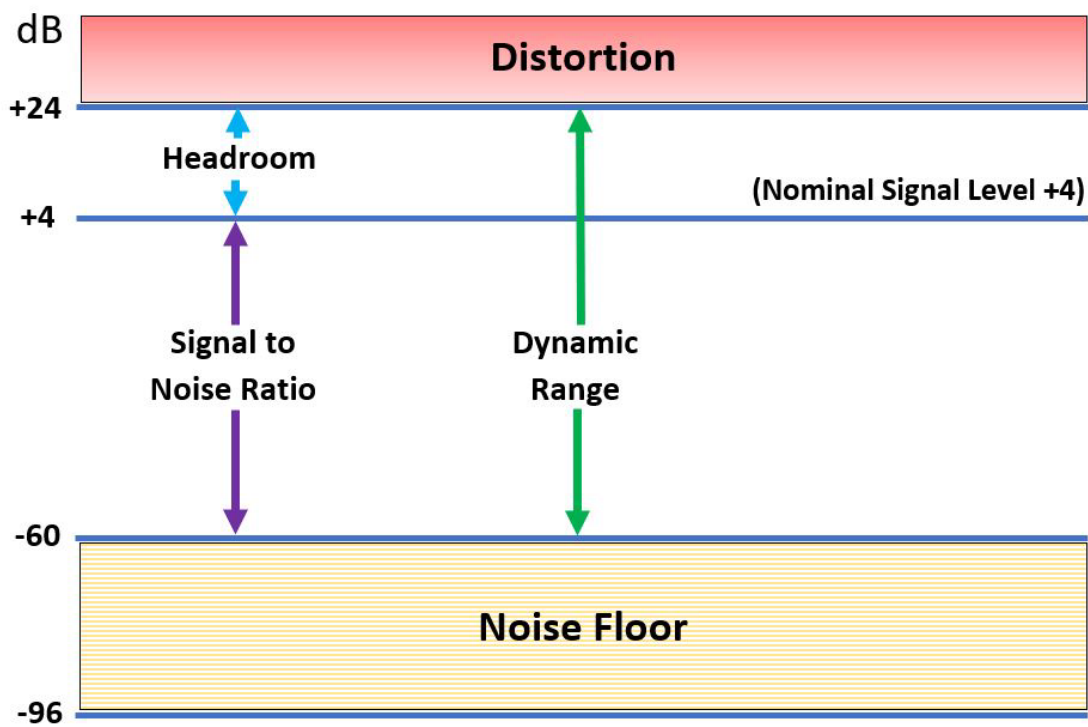


Dynamic Range and Headroom – A Quick Overview

Dynamic range is the difference between the loudest and the softest portion of a sound system. This includes the “noise floor” (which is inherent in all sound systems). Described another way, the Dynamic Range of a sound system is equal to the difference of the highest (peak) level of the system, and the noise floor. Headroom can be described as the ability of a sound system to easily handle loud peaks before the signal starts clipping / distorting.



The amount of headroom needed for a sound system varies with the application. Usually, +10dB of headroom is sufficient for most sound systems. If you are running “higher fidelity” musical performances +12 to +20dB of headroom would be more than ideal to ensure that clipping is avoided or kept at a minimum.