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## All Replies (15)







YouTube doesn't seem to understand the difference between *level* and *loudness*, and - much like many British TV channels - they don't have any idea what *perceived loudness* is. If you look at the "stats for nerds" on any video, the "content loudness" will be displayed in decibel full scale (dBFS - though YouTube shortens it to dB). To add even more confusion, a song that has been mastered so its highest peak *level* is 0 dBFS will be shown as something stupid like +7 dBFS if it's *peak loudness* is too high. (The sound would clip like heck and be totally distorted if that was its actual level) How they get that measurement I really don't know... It looks like it's probably the amount of gain required to bring the audio back to its original level, based on the highest peak *level* (not *loudness*).

When referring to digital audio:

- Level is an accurate measure of voltage (pressure).
- *Loudness* is the average distance from the "centre" of the wave (-∞ dBFS) to the peak. *Level* affects *loudness*.
- Decibel full scale (dBFS) is a unit of measurement for digital audio *level*. 0 dBFS is the most pressure a digital system can handle before clipping occurs. -∞ dBFS is no signal (silence).
- Decibel true peak (dBTP) is a unit of measurement for *true peak* using the same scale as dBFS.
- LUFS and LUKS are units of measurement for *loudness*.
- LU is a unit of measurement for *loudness range*.

The way YouTube implements *loudness normalisation* is closer to *peak normalisation*, only it's based on *peak loudness* rather than *peak-sample level*. In regular *loudness normalisation*, the *long-term (perceived) loudness* of the audio is measured and the overall *level* of the track is adjusted until the *target loudness* (-14 LUFS in this case) is reached. At least this should be the case, but for some reason <u>YouTube seems to normalise audio based on the highest *short*-</u>

