LOUDNESS WARS

Recorded music doesn't sound as good as it once did. It's muddied, clipped, and flat. Music evolution, if it can be called that, is toward louder, more commanding tracks. Today's studio engineers use techniques to raise the overall volume of tracks we listen to. The rationale being that loud gets attention, and sells music, at least according to many artists and producers. Welcome to the "loudness wars"…

Some of those engineering techniques remove the dynamic range (the difference between quietest and loudest notes) by compressing the musical peaks. The result is simply loud, flat, music with no character. As the music is compressed and begins to buzz (literally) in cd and mp3 players, it becomes more difficult to comprehend vocals, and the natural reaction of the listener is to turn the volume up even more. This all leads to listener mental fatigue and the path towards hearing damage as listening levels exceed 85db.

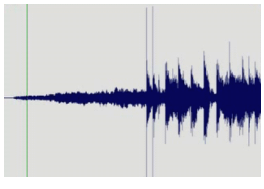
In response to the loudness wars, the music industry is beginning to fracture into two camps:

- Louder is Better – Those who feel the need to fight for listener attention, and money, by blasting the volume, and
- Bring Back the Dynamics – Artists and producers looking to bring back the subtly of music that makes a performer or band sound unique

Members of the second camp, including artists such as Bob Dylan, Geoff Emerick (engineer for the Beatles), and Val Weedon of the UK Noise Association are pushing to return music to more listenable, and less fatiguing, levels. In addition, Turn Me Up!, a non-profit music industry organization, has been established to promote artist choices in making more dynamic music.

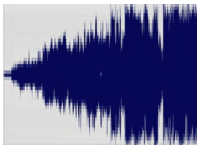
The following illustrates the effects of bumping the volume and compressing the sound…

Original Track:



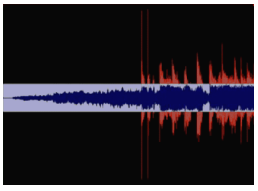
Notice the high peaks, and quiet areas, indicating broad dynamic range and musical personality.

After volume expansion, increasing loudness as much as possible:



The peaks are still there, but now hidden within a morass of other loud tones. The entire track would be too loud for comfortable listening.

Finally, the track is compressed to bring overall volume (vs. the 'loudness') down near the original levels:



The peaks are gone. The music is flat and colorless. Worse, with all the peaks clipped off, the track tends to buzz when played causing listener fatigue.

LOUDNESS PER GENRE

The following illustrates relative loudness by musical genre (with 0 dB being the absolute 'ceiling' for possible loudness before audible clicking and popping occurs on an mp3 or CD track):

GENRE	dB
Hip Hop	-8.38
Rock	-8.50
Latin	-9.08
Electronic	-9.33
Pop	-9.60
Reggae	-9.64
Funk / Soul	-9.83
Blues	-9.86
Jazz	-11.20
Folk, World, & Country	-11.32
Stage & Screen	-14.29
Classical	-16.63
Children's	-17.03

Keep in mind that, until the music industry ends the loudness wars, turning the music up won't make it sound better, or clearer. Just louder.

Know what you're listening to. Understand how it may affect your hearing. Speak up for change. And take steps to protect your ears.

listen carefully.™

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