

Compliant Audio Should Still Move the Meters!

Regulations designed to improve television loudness consistency have been implemented in around the world, including in the U.S. with the CALM Act, with more countries following suit. The issue of unwelcome loudness shifts is real and annoying to viewers, and while often specifically attributed to commercials, it often affects all programming.

In a classic example of “being careful what we wished for”, the very regulations designed to reduce viewer annoyance have resulted in an equally fatiguing consequence: The extreme reduction of dynamic range, and along with it, the loss of impact that creative variations in levels have on the viewing and listening experience.

The result is often audio that is compliant, but not very pleasing. While it’s safe to say that no one set out to deliberately make television audio sound worse, there’s little debate that in solving one problem we have created another. The real question then is whether or not there is a way to have the best of both worlds.

Thankfully, the answer is “yes” – it is absolutely possible to be compliant AND sound great. Maintaining well-controlled level does not automatically imply the loss of program dynamics.

Ideally, loudness control begins during production when the audio content is mixed. A skilled operator using a widely-available ITU-R BS.1770 loudness meter can produce compliant content from the very start, often with an artistic skill that automated file-based or real-time loudness correction solutions cannot. This content will require little if any downstream processing.

Since there is no guarantee all content will be compliant and well produced, and because variables such as live broadcasts introduce unpredictable audio levels into the equation, real-time loudness control is still required in most situations. Choosing a processor with a proven track record of delivering consistent, complaint audio while still maintaining appropriate dynamic range and audio quality is of critical importance. Beyond that, selecting the proper preset and tuning processing parameters is necessary.

Starting out with a “light” preset, listening to a variety of programs, measuring loudness off-air with an LKFS meter, and adjusting the output level of the processor to achieve the target level is a good starting point. If minimal processing does the trick, stop there. If some content isn’t being well controlled, make any necessary adjustments or choose a preset that offers better control and achieves the proper loudness target.

It is important to remember that both gentle and aggressive processing can in many cases yield identical readings on an LKFS meter, but will sound vastly different to our ears. Broadcasters are of course required to be compliant, but also need to make their viewers happy. Focusing solely on a loudness meter reading will not accomplish this goal, but proper metering, appropriate levels of processing, and critically listening to the audio most certainly will. After all, viewers are (still) listening!