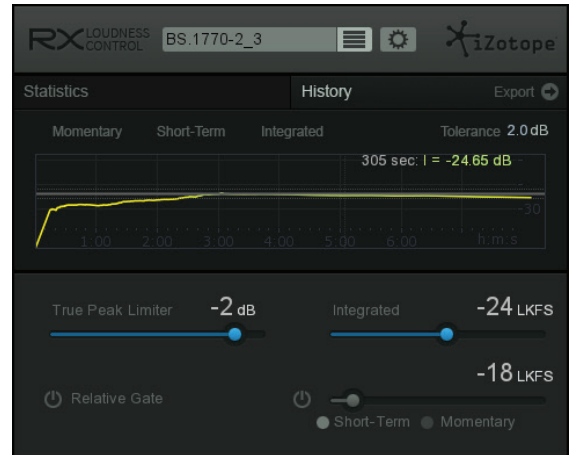


RX LOUDNESS CONTROL

Deliver great-sounding audio for broadcast while ensuring your content meets the appropriate loudness control standards!

Designed specifically for post production and video editors' workflows, **RX Loudness Control** provides intelligent, industry-leading audio signal processing in an easy-to-use interface.

Analyze and render a file for broadcast compliance in faster than real-time, then instantly create a .CSV loudness report. It's the fastest and most reliable way to get the best-sounding automatic loudness compliance processing.



Here are a few helpful things to know about loudness compliance:

Peak Level vs. Loudness

Peak level represents the maximum output voltage of a system. These are momentary, quantitative measurements that monitor a given instant. Loudness Units (LU), on the other hand, measure average loudness over a period of time. When we compare loudness relative to peak level, we use Loudness, K-weighted, relative to Full Scale (LKFS). These are distinct from decibels (dB), which are the measurement unit for Level.

Loudness Subjectivity

Two programs with identical peak levels could still be perceived as having different loudness levels. This is because we perceive sounds to be louder or softer relative to each other and their context. For this reason, integrated loudness measurement uses carefully designed algorithms to attempt to quantify our perception of loudness. The goal is to measure "loudness" using a new kind of meter and represent it absolutely.

Holistic Processing

Because we perceive loudness relative to context, loudness standards must consider sound levels across an entire program. RX Loudness Control makes calculated adjustments to the level based on the entire length of the program segments. This ensures that you deliver consistently accurate, broadcast-compliant audio with the most transparent signal processing possible.

Benefits of Loudness Compliance

By respecting loudness standards, you preserve sound quality and dynamic range without distracting variations in perceived loudness between program segments. In other words, you give the listener a more consistent and pleasant listening experience—all while saving yourself time and money!

Global Loudness Standards

International Telecommunication Union (ITU) BS.1770 is one of the most important global broadcast standards. The BS.1770-2 update employs a relative gate for measuring program loudness, and the most recent version, BS.1770-3, emerged in 2012.

Many other broadcast standards are based on ITU BS.1770:

- ATSC A/85 (U.S.)
- EBU R128 (Europe)
- AGCOM 219/09/CSP (Italy)
- OP-59 (Australia)
- TR-B32 (Japan)

The network that you are delivering to can confirm their individual specifications.

Meeting these standards is easy with RX Loudness Control! Built-in presets meet the most common global standards with faster-than-real-time correction.



RX LOUDNESS CONTROL

System Requirements

RX Loudness Control runs as an offline plug-in for your video or audio editing software.

Operating system

Windows: 7 or later

Mac: OS X 10.7 or later (Intel only)

Plug-in formats

AVID Audiosuite DPM and AAX, Adobe Extension for Premiere Pro CC and Media Encoder CC.

Host compatibility

RX Loudness Control is compatible as a plug-in for Pro Tools 10-12, Media Composer 7-8, and Premiere Pro CC.

Technical FAQ

How does RX Loudness Control process multiple channels of audio?

RX Loudness Control applies the same gain envelope (linked operation) to all channels—for example, stereo and 5.1 surround—to maintain phase and balance between the different channels in the final mix file.

How does RX Loudness Control comply with different loudness standards?

RX Loudness Control first analyzes the audio source file. Then it computes the amount of transparent correction required to hit the target without a perceived change to the dynamic range. The correction pass includes three elements:

1. A fixed amount of gain to hit the specified integrated loudness
2. [optional] An RMS compressor to limit the Short-term (or Momentary) loudness
3. A True Peak limiter

Steps 2 and 3 work only on an as-needed basis. If the audio signal already meets Short-term and True Peak specs, no extra processing is applied.

How does RX Loudness Control use compression?

RX Loudness Control uses compression in a way that preserves the quality of your audio. When needed, a compressor dynamically adjusts your audio to ensure you get the best sound while remaining compliant. For loudness standards that require Short-term or Momentary compliance, the compressor is engaged automatically when loudness exceeds the specified target. You simply enable a slider via an on/off button and set the threshold. The Short-term/Momentary slider toggles between both modes, and can be turned on or off.

How will the processing affect the dynamics of my mix?

For many mixes, dynamics are not affected at all. This is because only a fixed gain is required to meet the spec. However, if your mix is too dynamic or has significant transients, compression and/or limiting are required to meet Short-term (Momentary) or True Peak parts of the spec. This reduces the dynamics of the mix in the same manner as a compressor and/or iZotope's IRC™ II limiter (also found in iZotope's creative mastering platform, Ozone 6.).

Can my audio distort if my peaks are higher than the True Peak setting?

IRC II is considered one of the best limiting algorithms. Its goal is to provide the best possible sound during operation. For most mixes, it will only work occasionally to meet the loudness spec. If the limiter is being hit hard, it might be that the mix is too dynamic and needs to be redone or compressed prior to loudness correction.

What's the difference between RX Loudness Control and iZotope's Insight?

RX Loudness Control and Insight complement each other in post and broadcast workflows. Insight is a surround sound, real-time loudness metering suite that helps you visualize changes made during mixing and mastering. RX Loudness Control is a more comprehensive tool that analyzes and corrects your final render for compliance with global loudness standards.

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