

ENGINEERING CHEAT SHEET

2026 PODCAST AUDIO CHECKLIST

The exact workflow used across 500+ client episodes to achieve crystal-clear voice clarity, zero room echo, and platform-compliant -14 LUFS loudness.

1. CAPTURE & PREAMP

STAGE 01

- ♦ **Distance Rule:** Keep mouth 10–15 cm (4 fingers) from mic capsule. Closer = boomy mud; farther = room echo.
- ♦ **30–45° Off-Axis:** Angle capsule toward mouth corner to eliminate harsh 'P' & 'B' plosives without bulky shields.
- ♦ **Gain Staging Headroom:** Peak natural speaking levels between **-18 dB and -12 dB True Peak**. Never clip yellow/red.
- ♦ **Rear Absorption:** Place soft panels or blankets behind the speaker's back to kill direct slap-back wall reflections.

2. EQ & RESONANCE CLEANUP

STAGE 02

- ♦ **High-Pass Filter (HPF):** Cut at **80 Hz (18 dB/oct)** to strip HVAC rumble, sub thumps, and desk vibration.
- ♦ **Boxiness Notch:** Narrow Q notch cut (-2 to -3.5 dB) between **200–350 Hz** to remove small-room resonance.
- ♦ **Nasal Reduction:** Gentle dip around **900 Hz – 1.2 kHz** if speech sounds congested or megaphone-like.
- ♦ **Air & Silk Shelf:** Smooth high-shelf boost **+1.5 to +2.5 dB at 8.5 kHz** for modern presence on dynamic mics (SM7B/PodMic).

3. DYNAMICS & DE-ESSING

STAGE 03

- ♦ **Optical Vocal Compression:** Set ratio **2.5:1 to 3:1**, 25ms attack, 100ms release for transparent, smooth control.
- ♦ **Target Gain Reduction:** Catch **3–6 dB of peak reduction** on loud remarks without audible pumping.
- ♦ **De-Esser Band:** Target sibilance between **5.5 kHz – 7.5 kHz** with 3–4 dB reduction max to tame piercing 'S' sounds.
- ♦ **Downward Expander:** Set 1.4:1 ratio with -38 dB threshold to gently push room floor to pure silence between words.

4. BROADCAST LOUDNESS MASTER

STAGE 04

- ♦ **Integrated Target:** Exactly **-14.0 LUFS (±0.5 LUFS)** for Spotify, Apple Podcasts, and YouTube Podcasts.
- ♦ **True Peak Ceiling:** Lock brickwall limiter ceiling at **-1.0 dBFS True Peak** to prevent inter-sample distortion on AAC/MP3.
- ♦ **Loudness Range (LRA):** Target **4 to 7 LU** for consistent intelligibility in noisy environments (cars, gyms).
- ♦ **Master Exports:** Archive in 48 kHz / 24-bit WAV, export distribution files in 192 kbps or 320 kbps CBR Stereo MP3.

♦ **PLATFORM NORMALIZATION RULE:** Never upload at -19 or -24 LUFS. Streaming algorithms will boost low-level tracks, magnifying background hiss and mic noise. Always master cleanly to **-14.0 LUFS**.