Records

USER MANUAL

VERSION 1.0 · MACOS

masterMALO

MIX BALANCE & MASTERING

Clean the stems.
Balance the mix.
Master it for where it's going.



masterMALO app · VST3 · Audio Unit · macOS 10.13 or later, Intel & Apple Silicon

A Kenya-based Páa Records product

WELCOME

A senior engineer's ears, on your own computer.

You send a mastering engineer a few stems: the beat, the lead vocal, the backing vocals. A good engineer listens to each one, cleans what's noisy or harsh, sets the levels for the style, makes room where parts fight, and then masters the song for where it will be played. masterMALO does that work with you, and **shows you what it hears and what it changes**, so you learn from every song.

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HOW MASTERMALO WORKS

1 · MIX

Clean and balance

Drop the stems. The **diagnosis** lists what's noisy, harsh, sibilant, out of phase or fighting. Press BALANCE: every stem is cleaned, set to the right level for the style, and given room where it covers a more important part.

2 · MASTER

Tone, glue, loudness

The balanced mix goes through the mastering chain: a tone EQ fitted to the style (or to a song you love), gentle compression, stereo care, warmth, and a **true-peak limiter** that never lets the master go over the ceiling.

3 · EXPORT

One master per destination

Tick where the song is going: Spotify, Apple Music, YouTube, Boomplay, a club, a CD, radio. Each delivery gets its own WAV at the right loudness and ceiling, and a short report of how every streaming service will play it.



EVERYTHING STAYS ON THIS COMPUTER

masterMALO listens, cleans, balances and masters on your computer. No audio is ever uploaded. Loudness and true peak are measured to **ITU-R BS.1770-4** and **EBU R128**, the standards the streaming services and broadcasters use.

01 Quick start

From stems to finished masters in a few minutes. Start in the **masterMALO app** (Applications › masterMALO): it is the full studio for stems and batches of songs.

1. **Drop your stems on MIX**
   The stems you'd send for mastering: often 2–4 stereo files (beat, lead vocal, backing vocals, bass) or a full multitrack. Export them from the same session, all starting at the same point.

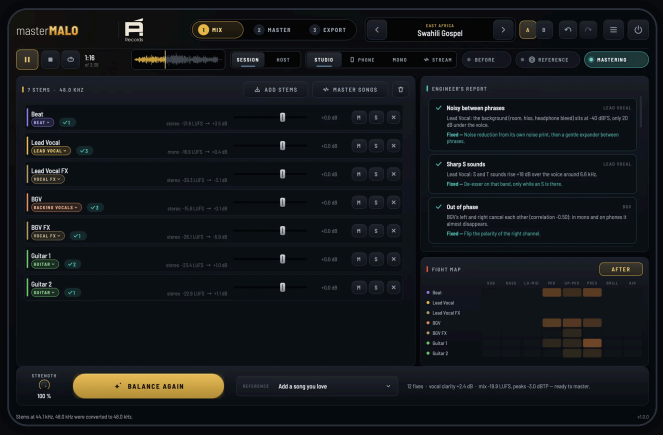
2. **Read the diagnosis**
   Each stem gets a role (`LEAD VOCAL`, `BEAT`…) and badges for what's wrong. Click a role to correct it.

3. **Pick the style**
   Click the `STYLE` in the header: Western, East Africa, West Africa, South Africa or World. The style sets the balance, the tone and the loudness.

4. **Press `BALANCE`**
   About half a minute to a minute. Then press play: `BEFORE` plays your raw stems at the same loudness, so you hear what changed, not what got louder.

5. **Go to MASTER**
   Choose the `DELIVERY` (Spotify, Apple Music, YouTube, club…). Listen on `PHONE` too: most of your audience will.

6. **EXPORT**
   Tick every delivery you need and press `EXPORT`. Each WAV comes with a loudness report.



MIX after BALANCE: seven stems with their roles, the engineer's report on the right and the fight map below it.

ONLY HAVE THE FINISHED SONG?

Drop it on `MASTER`, or press `MASTER SONGS` on MIX. One song or a whole batch: masterMALO skips the mix stage and masters them. See page 16.

IN YOUR DAW

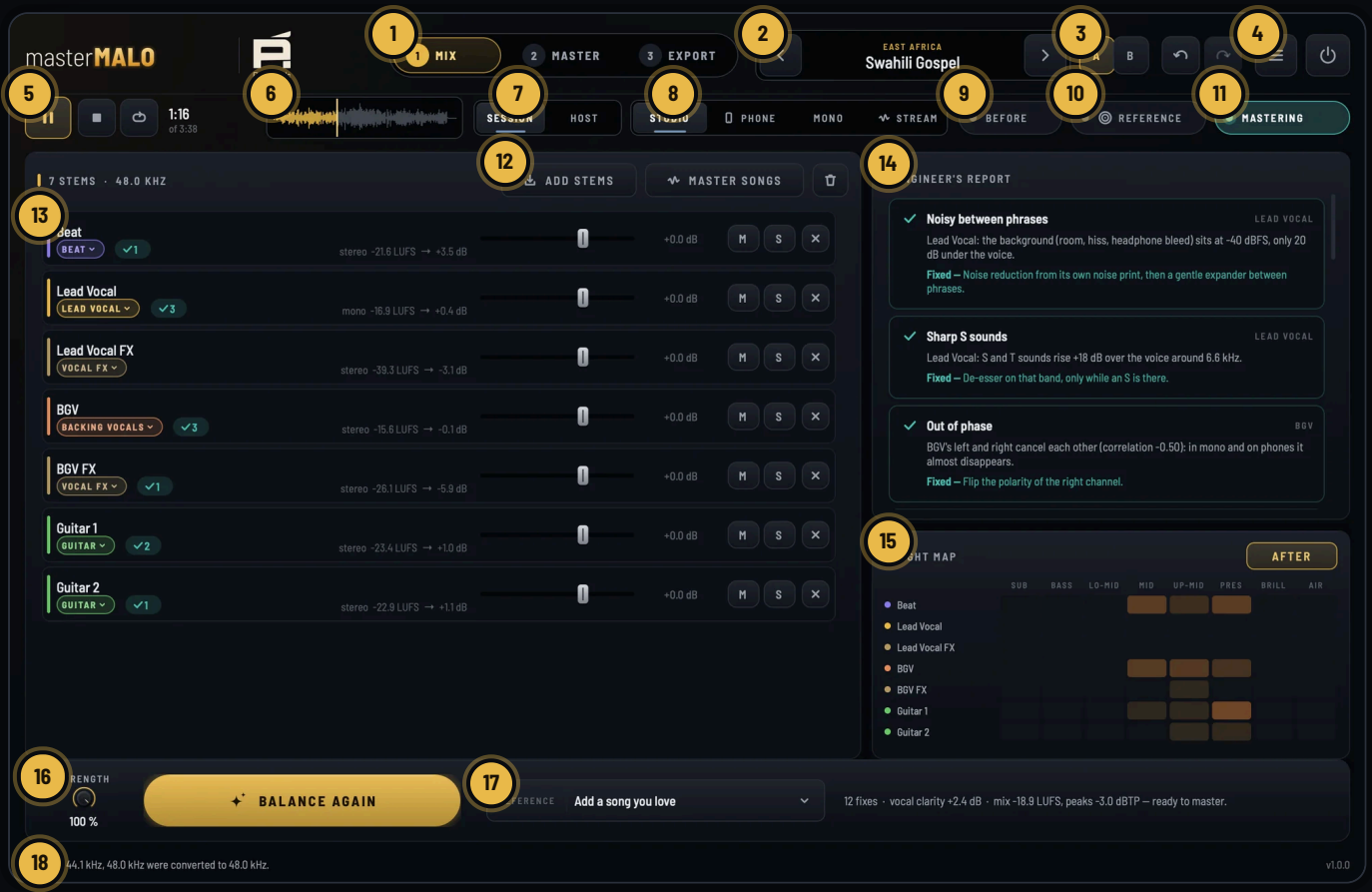
Put the masterMALO plug-in **last on the master bus** and play the song. It listens for 40 seconds, learns the tone and loudness, then masters live. See page 16.

FIRST TIME ON THIS COMPUTER?

masterMALO asks for your pass once, with an internet connection. Until then the diagnosis works, but Balance, mastering and export are locked and audio passes through untouched. The Install & Activation Guide walks you through it.

02 The window at a glance

The header and the transport stay the same on every stage; below them, the page changes with the stage. Hover over any control for a short explanation. ≡ › Window size offers 70–130 %, or drag the window's corner (60–160 %).



1 Stages
1 MIX ⟶ 2 MASTER ⟶ 3 EXPORT. Click to move between them; a tick marks a finished stage.

2 Style
‹ › step through the styles; click the name for the full list by region. Page 5.

3 A / B · Undo · Redo
Two complete settings to compare; masterMALO's own history of the sound settings.

4 Menu · Bypass
≡: window size, add stems, master songs, load a reference, user manual, activation, about. ⏻ bypasses everything.

5 Transport
Play / pause (SPACE in the app), stop, loop, and the time.

6 Waveform
What plays. Click or drag anywhere to jump there.

7 Session · Host
Plug-in only: play your stems or songs, or master the DAW's audio. Page 16.

8 Monitor
Listen as Studio, Phone (a phone speaker), Mono or Stream. Page 13.

9 Before
The original at the same loudness: judge the sound, not the volume.

10 Reference
Hear your reference song at the master's loudness.

11 Mastering
On or off. Off, you hear the balanced mix.

12 Add stems · Master songs · Bin
Bring in stems, switch to finished songs, or start a new session.

13 Stems
One row per stem: role, issues, level, your trim, mute, solo. Page 6.

14 Diagnosis / Engineer's report
What's wrong, and what Balance does (or did) about it. Pages 7–8.

15 Fight map
Which stem covers which, and where. Page 9.

16 Strength · Balance
How much of the engineer's work to apply, and the button that does it.

17 Reference
A song you love: its tone, width, loudness and balance guide yours.

18 Status line
What masterMALO is doing, and its notes (sample-rate changes, files it couldn't read).

03 Styles

The style is the most important choice you make. It tells masterMALO where the vocal sits against the beat, who owns the sub, which tonal balance to aim for, and how loud and dense the master should be. Pick the closest one; if none fits, try **Transparent** or a **reference**.

WESTERN

US Pop — −9.0 LUFS · PLR 8.5
Polished, bright and wide; vocal on top, tight low end.

Hip-Hop / Trap — −8.0 · 7.5
808 owns the sub, punchy drums, vocal forward and dry.

R&B / Soul — −10.0 · 9.5
Warm and silky: round low end, smooth top, gentle dynamics.

Gospel — Praise & Choir — −9.5 · 9.0
Big choir body, organ and bass, lead vocal clear above the praise.

Gospel — Worship Ballad — −11.0 · 11.0
Open and dynamic; space for the voice, warm pads, airy top.

Urban Gospel — −9.0 · 8.5
Gospel vocals on modern hip-hop drums and 808s.

EAST AFRICA

Bongo Flava — −9.0 · 8.5
Tanzanian vocal-forward pop: bright voice, bouncing kick, crisp percussion.

Gengetone — −7.5 · 7.5
Nairobi energy: hard kick and bass, loud, shouted hooks cutting through.

Kenyan Afro-pop — −9.0 · 8.5
Smooth Afro-pop from Kenya: warm groove, clear vocal, airy top.

Benga & Ohangla — −10.0 · 9.5
Fast guitar lines and walking bass up front, live drums, natural dynamics.

Swahili Gospel — −9.5 · 9.0
East-African praise: choir and lead in front, Afro-pop bounce under them.

Great Lakes Afro-pop — −9.0 · 8.5
Rwanda, Burundi, Uganda: melodic Afro-pop, guitars and voices in harmony.

Kidandali / UG Dancehall — −8.0 · 8.0
Ugandan dance: driving kick and bass, loud and bright.

Rumba & Ndombolo — −9.5 · 9.5
Congolese guitars (sebene) shining, round bass, vocals sweet and present.

WEST AFRICA

Afrobeats — Lagos Pop — −8.5 · 8.0
Nigerian Afrobeats: warm bouncing kick, shakers in the air, vocal glowing on top.

Afro-fusion — −9.0 · 8.5
Afrobeats meets R&B and dancehall: warm, wide, rhythmic.

Afro-R&B / Soft Afro — −10.0 · 9.5
Mellow Afro grooves: soft top, rich low end, intimate vocal.

Street-pop / Afro-dancehall — −7.5 · 7.5
Loud, raw and bouncy: big kick, hard snare, voice in your face.

Highlife — −10.0 · 9.5
Ghanaian highlife: bright guitars and horns, live feel, natural dynamics.

Afro Gospel — −9.0 · 8.5
Praise on an Afrobeats groove: choir, lead and percussion all lifted.

SOUTH AFRICA

Amapiano — Log Drum — −8.0 · 8.0
The log drum leads: deep, round and loud, with shakers and keys floating above.

Private School Piano — −9.5 · 9.5
Soulful amapiano: jazzy keys, sax, softer log drum, more room to breathe.

Gqom — −7.0 · 7.0
Durban's dark, heavy broken-beat: huge low end, loud, minimal top.

Afro House — −8.0 · 8.5
Deep, wide and hypnotic: rolling kick, percussion everywhere, airy vocals.

SA Gospel & Choral — −10.5 · 10.0
South-African choirs: rich harmonies, warm body, space and power.

WORLD

Dancehall — −8.0 · 8.0
Jamaican riddims: heavy bass, snappy drums, voice up front.

Reggae — −10.0 · 10.0
Roots: bass is king, warm mids, relaxed top end and real dynamics.

Kompa & Zouk — −9.5 · 9.0
Caribbean romance: smooth bass, lush keys and guitars, sweet vocals.

Latin / Reggaeton — −7.5 · 7.5
Dembow drive: tight kick, big sub, loud and present.

Acoustic & Live — −12.0 · 12.0
Natural and open: real dynamics, honest tone, just cleaner and safer.

Transparent — −14.0 · 12.0
No tone shaping: only safe loudness and a clean true-peak ceiling.

WHAT A STYLE SETS

The balance family on MIX (vocal-forward, groove, club, or choir & live), the target tone, the lead's presence and air, how hard stems make room, and the mastering controls. A new style resets those controls; the header says EDITED once you change one.

THE NUMBERS

The loudness Loud & clean aims for in this style, and the style's guard (minimum PLR, page 12). The guard has the last word: −1 dBTP minus a 9 dB guard stops the master at −10 LUFS. Streaming deliveries keep their own targets.

Styles describe the sound of a genre. They are not affiliated with, or endorsed by, any artist or label.

04 MIX: your stems

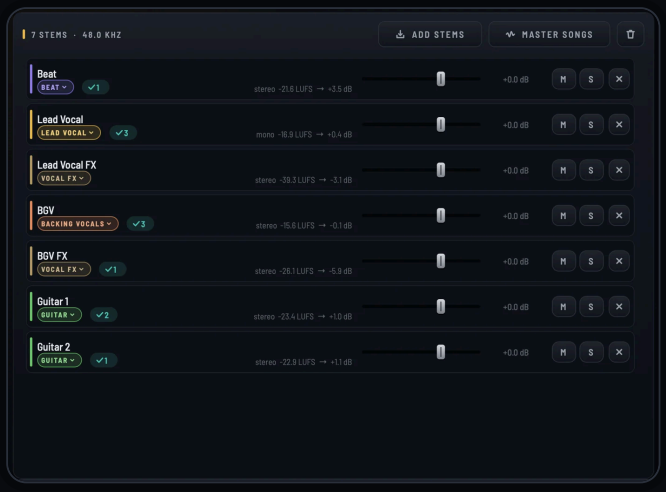
Drag the files onto masterMALO, or press ADD STEMS. masterMALO listens to each one, guesses what it is from its name and its sound, and lists it as a row.

WHAT TO SEND

- **Typical:** the 2–4 stereo stems a producer sends for mastering, such as Beat, Lead Vocal, Backing Vocals, Bass. **Or a full multitrack**: kick, snare, bass, keys, guitars, every vocal (up to 48 stems).
- **Formats:** WAV, AIFF, FLAC, MP3, M4A or OGG, up to 30 minutes long. WAV or AIFF at 24-bit is best.
- **Export them from one session, from the same start point.** masterMALO lines the stems up at their start, exactly as exported. Don't trim the silence at the beginning.
- **Leave headroom.** Stems that peak around –6 dBFS are ideal. Don't put a limiter on the master bus when you export them.
- **Name the folder after the song.** masterMALO names the masters after the folder that holds the stems.

MASTERMALO TAKES CARE OF

- **Split left and right files.** Mono pairs like BGV L / BGV R, Vox_Left / Vox_Right or Pad.L / Pad.R are joined into one stereo stem.
- **Mixed sample rates.** The session runs at 48 kHz if any file is 48 kHz or more, otherwise at 44.1 kHz; the other files are converted, and the status line says so.
- **Effect returns.** A return named like its voice (LEAD FX, BVs FX, Vox Reverb) becomes VOCAL FX and follows its dry track: the send level you chose is kept. NO FX or dry in a name means the dry track.
- **Mono in stereo.** A stereo file with identical sides is treated as mono.



After BALANCE, each row shows how many fixes it got (✓), its loudness and the level the engineer set (→).

ONE STEM, ONE ROW

Role chip	What masterMALO thinks the stem is. **Click it to change it**: the role decides the cleaning, the compression, the level and who makes room for whom.
Badges	Before Balance: ⚠ problems and ⓘ advice. After: ✓ fixes.
mono / stereo · LUFS	The stem's format and loudness, then → +2.4 dB: the engineer's level.
Trim fader	**Your** trim on top of the engineer's level, –24 to +12 dB. Double-click: 0 dB.
M · S · ×	Mute, solo, remove the stem.

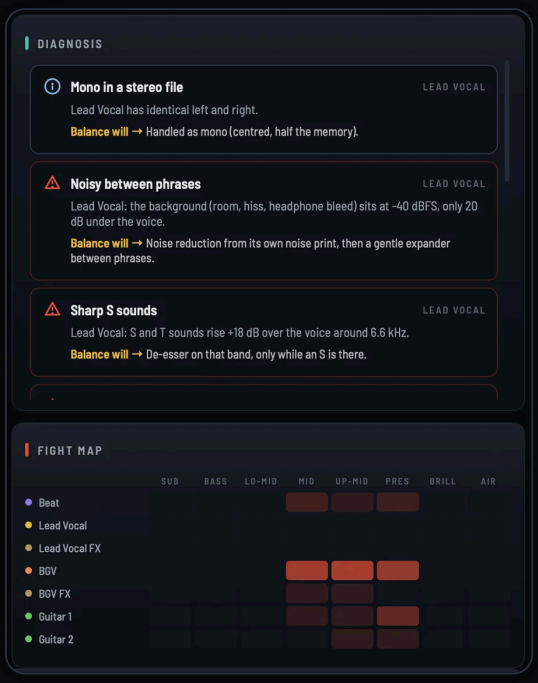
THE ROLES

LEAD Lead Vocal	BGV Backing Vocals	VFX Vocal FX	BEAT Beat (2-track)
KICK Kick	SNR Snare & Claps	DRUM Drums	PERC Percussion
BASS Bass	LOG Log Drum	GTR Guitar	KEYS Keys & Synths
INST Lead Instrument	PAD Pads & Strings	FX FX	OTHR Other

The colours match the stems' colour bars and the fight map. A stem you set by hand keeps its role.

05 The diagnosis

As soon as the stems are in, masterMALO lists what a careful engineer would notice on the first listen. The diagnosis is free: it works before masterMALO is activated. Each card names the stem, says what's wrong in plain words, and what BALANCE will do about it.



The diagnosis, before BALANCE. Cards are sorted: problems first, then advice, then notes.

- **Red** · a problem you would hear
- **Amber** · advice: worth fixing
- **Blue** · a note about the session
- **Teal** ✓ · fixed by Balance

THE CARD SAYS	WHAT IT MEANS · WHAT BALANCE DOES
Noisy between phrases	Room, hiss or headphone bleed close under the voice. · Noise reduction from the stem's own noise print, then a gentle expander between phrases.
Sharp S sounds	S and T sounds jump out of the voice. · A de-esser on that band, working only while an S is there.
Ringing / harsh resonance	One frequency between 1.8 and 8 kHz rings above its neighbours: it tires the ear, and gets harsher when mastered loud. · A narrow cut, plus dynamic de-harshing.
Boxy / room tone	A boxy ring in the low-mids of a voice, kick, snare or guitar. · A narrow cut there.
Out of phase	Left and right cancel each other: in mono and on phones the stem almost disappears. · The right channel's polarity is flipped.
Wider than mono-safe	More side than middle: it thins out on mono speakers. · The width is brought in until the middle leads.
Clipped in the file	The stem hits full scale: it was clipped on export, and that can't be fully undone. · Ask for a new export peaking around –6 dBFS; masterMALO keeps the rest clean.
Printed too hot	Peaks above –0.3 dBTP: no room left in the file. · Nothing clips inside masterMALO; next time, export with headroom.
DC offset	The waveform sits off centre and wastes headroom. · Removed.
Mono in a stereo file	Identical left and right. · Handled as mono, centred.
Silent	Nothing above –100 dBFS. · Muted.
Different lengths	The stems end seconds apart. · Nothing to fix: they're aligned at their start.
No lead vocal	No stem was recognised as the lead. · The balance is anchored on the beat. If there is a lead, set its role to LEAD VOCAL.

FIX IT AT THE SOURCE WHEN YOU CAN

masterMALO repairs what can be repaired. A clipped vocal, a noisy room or a stem printed through a limiter is always better fixed with a new export. If you're mastering for a client, send them the diagnosis: it tells them exactly what to change.

06 BALANCE and the engineer's report

Press BALANCE. In about half a minute to a minute, masterMALO cleans every stem, sets the levels for the style and makes room where stems fight. The diagnosis becomes the **engineer's report**: what it found, and what it did.

1 · EACH STEM IS CLEANED, BY ITS ROLE

- **High-pass** against rumble: about 80 Hz on a lead vocal, 140 Hz on backing vocals, 25 Hz on bass and kick.
- **The repairs** from the diagnosis, and a 300 Hz cut on a muddy voice or instrument.
- **De-harsh** (2–9 kHz, only when it pokes out) and a **de-esser** on vocals.
- **Tone by role:** presence and air on the lead, as the style asks; a 3 kHz dip on backing vocals; darker effect returns.
- **Compression by role:** leveller then peak control on vocals and bass, a 12 ms attack on the kick to keep the knock, a light 1.6:1 on a 2-track beat.

2 · YOUR BALANCE, MOVED TOWARD THE STYLE

masterMALO starts from **your** balance: stems exported from one session carry your fader levels. With the lead vocal as the anchor (the beat, without one), each stem moves part of the way toward where the style wants it: 60 % of the way, at most 6 dB, at full Strength. It corrects a balance; it doesn't rewrite your arrangement.

3 · ROOM IS MADE, THE VOCAL IS CHECKED

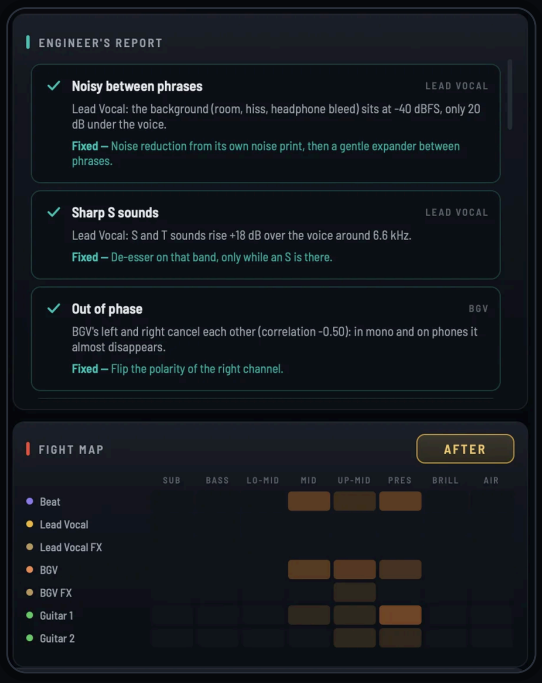
A stem that covers a more important one dips there **only while the other plays** (page 9). Stems piling up at 150–400 Hz get gentle cuts at 280 Hz. The lead must stand out in 1–5 kHz while it sings: buried, it comes up; pasted on top, it comes down a little.

4 · THE ARRANGEMENT'S TONE, THEN MASTERING

Instrument levels are nudged (2 dB at most) toward the style's balance of lows, mids and highs, or the reference's; what levels can't fix is reported as advice. Bus glue holds it together; the mix goes to MASTER at about **–18 LUFS, peaks no higher than –3 dBTP**.

CARDS THAT APPEAR AFTER BALANCE

Fighting …	Where a stem dips, how much.
Low-mid build-up (mud)	Stems piled up at 150–400 Hz.
Vocal buried · Vocal on top of the song	The lead came up, or down a little.
Effect louder than its voice	Now 6 LU under its dry track.
Tonal balance of the arrangement · Balanced toward the reference	Which instruments moved.
Thin low end · Heavy low end · Dull top · Crowded mids	Advice: what levels can't fix.



The engineer's report: every card is teal and says what was fixed. Below it, the fight map after Balance.

STRENGTH 0–100 % · 100 %

How much of the engineer's work to apply: cleaning, compression, room, and how far levels move. 60–70 % for stems already mixed with care.

REFERENCE add a song you love

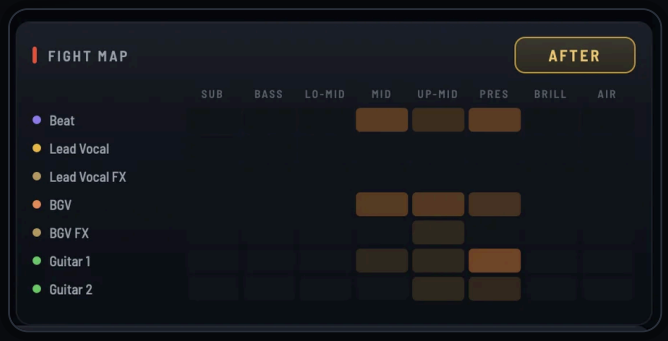
Balance leans the levels (±2.5 dB) toward its balance; MASTER matches its tone, width and loudness. Click it to replace or remove it.

REBALANCE

New style or Strength after a balance? The button reads REBALANCE. After a role or reference change, press BALANCE AGAIN. Your trims stay.

07 The fight map

A mix sounds muddy or crowded when two parts want the same space at the same moment. The fight map shows it: **one row per stem, one column per frequency zone**. A lit cell means that stem covers a more important one there.



After BALANCE. Press AFTER / BEFORE above the map to compare. Before, every fight is red; after, what's left fades from red to amber, or disappears.

WHO GIVES WAY TO WHOM

- Every role has a priority. The **lead vocal** comes first, then kick, log drum, bass, snare, drums, lead instrument, beat, backing vocals, guitar, keys, percussion, pads, effects.
- Anything covering the **lead vocal** in the mids, upper mids or presence dips there while the lead sings.
- Bass, log drum or beat covering the **kick** in the sub and bass dip on each kick hit.
- Keys, pads and guitars covering a **lead instrument** dip in the upper mids and presence.
- In styles where the bass or the log drum owns the sub (Hip-Hop, Amapiano…), the beat's sub makes way for it.
- A voice and its own reverb never fight.

ZONE	RANGE	WHAT LIVES THERE
Sub	20–60 Hz	808 and log-drum fundamentals, kick weight. Felt more than heard; phones can't play it.
Bass	60–150 Hz	The bass line, the kick's punch.
Lo-mid	150–400 Hz	Warmth, or mud when everything piles up here.
Mid	400 Hz–1 kHz	The body of voices, guitars and keys.
Up-mid	1–2.5 kHz	Words and attack: where a vocal is understood.
Pres	2.5–5 kHz	Presence. The ear is most sensitive here; harshness too.
Brill	5–10 kHz	Shakers, hi-hats, S sounds.
Air	10–20 kHz	Sparkle and breath.

WHY DIPS, NOT CUTS

A fixed EQ cut would thin the guitar for the whole song. masterMALO's dips follow the more important stem: the guitar keeps its body between vocal lines and only steps aside while the lead sings. Cuts are gentle (about 2–6 dB, less on backing vocals) and set by the style: groove styles leave the beat its weight, vocal-forward styles clear more space for the voice.

YOUR HANDS ON IT

Use the trim faders after Balance: they sit on top of the engineer's levels. Solo a stem to hear what it lost, mute it to hear what it gives. STRENGTH lowers every dip at once.

08 MASTER: the chain and the spectrum

The balanced mix, or your finished song, goes through one mastering chain. Each stage has a macro control, already set by the style. masterMALO plans the chain from what it hears: the tone EQ is fitted to the difference between your song and the target.



On export, masterMALO searches for the drive that lands the master on the loudness target (within about a tenth of a LU), then checks every master's true peak against the ceiling. Masters never go over it.



READING THE SPECTRUM

- **Output** (teal fill): the master, as it plays.
- **Input** (thin blue line): what goes in.
- **Target tone** (gold dashes): the style's tonal balance, or your reference's (it then reads Reference tone), lined up with the output over 100 Hz–10 kHz.
- **Tone EQ** (cream line): the EQ that `TONE` and `TILT` apply, on its own ±12 dB scale around the middle line.

The display is weighted so pink noise reads flat: a balanced mix looks like a gentle slope down to the right. Where the teal sits above the gold, the master is fuller there than the target.

09 The mastering controls



Swahili Gospel's settings. Drag a knob up or down; double-click it to return to the style's setting.

TONE 0 … 100 % · **style: mostly 55–60 %**

How far the master moves toward the style's tonal balance, or your reference's. It never boosts more than 4.5 dB anywhere, and much less in the deep sub and the extreme top.

TILT Darker 100 % … Brighter 100 % · **Neutral**

The quickest tone move: warmer and darker to the left, brighter and more open to the right, pivoting at 1 kHz (about ±2.5 dB at the ends).

SMOOTH 0 … 100 %

Tames harshness around 2–5 kHz **only when it jumps out** (cymbals, shouted vocals), up to 5 dB, so it never dulls the song.

GLUE 0 … 100 %

Three-band compression that holds the mix together. It calibrates itself to the song; higher is denser.

PUNCH 0 … 100 %

Lets the kick, log drum and snare hit through the glue: a slower attack and lifted transients.

TIP If Glue makes the drums feel soft, raise Punch before lowering Glue.

WARMTH 0 … 100 %

Analogue-style saturation, 4× oversampled: density and harmonics without fizz.

WIDTH 0 … 150 % · **100 % = as is**

Stereo width above the bass. It never makes a mix less mono-safe than it was: a mix that is already very wide or out of phase isn't widened further. With a reference, the width follows the reference's.

BASS FOCUS Off · 30 … 250 Hz

Makes everything below this frequency mono, so the low end is solid on club systems and vinyl-safe. Mono < 120 Hz suits most songs.

TRANSLATE 0 … 100 %

Adds the bass's harmonics, so phones and laptop speakers "hear" the 808 and the log drum. Check it with **PHONE** monitoring (page 13).

CHARACTER Clean · Punchy · Loud

The final stage. **Clean**: gentle and open, the limiter does the work. **Punchy**: a clipper shaves the fastest peaks first, so drums stay sharp. **Loud**: the clipper and limiter work harder, for club and street styles.

A / B, UNDO, REDO

Press **B** to try other settings on the same song, then switch back to **A**: each holds a complete setting, style included. Undo and redo (the arrows in the header) cover the mastering controls (also when a new style changed them), the delivery, loudness, ceiling, guard and character: up to 200 steps, separate from your DAW's.

10 Loudness, delivery and the guard



The loudness panel while the song plays.

LUFS INTEGRATED

The big number: the master's loudness over the whole song so far. Below it, in gold, the target and the ceiling (· guard when the guard lowers the target).

MOMENTARY · SHORT-TERM

Loudness over the last 0.4 s and 3 s, against the gold target line: teal below it, gold near it, red more than 2 dB over.

REDUCTION — LIM · LO · MID · HI

How hard the limiter (amber) and the three glue bands (blue) are working, up to 12 dB.

TRUE PEAK · RANGE (LRA) · PLR

True peak: teal at or under the ceiling. LRA: how much the loudness moves between quiet and loud parts. PLR: true peak minus loudness, how much punch is left; amber when it falls under the guard.

PHASE — −1 … +1

Left and right in agreement on the right side (teal); amber under 0.3; red under 0 means parts cancel in mono.

HOW THE STREAM PLAYS IT

For example Spotify: turned down 4.0 dB. Louder never sounds louder there.

DELIVERY, LOUDNESS, CEILING, GUARD

DELIVERY — 13 choices, page 14

Where the song goes. It sets the loudness target and the ceiling. Choose Custom to set your own.

LOUDNESS — −24 … −6 LUFS

The integrated loudness to aim for.

CEILING — −3.0 … −0.1 dBTP · **−1.0**

The highest true peak allowed, inter-sample peaks included.

GUARD — PLR 6 … 14 dB · **style**

The dynamics guard: the smallest peak-to-loudness ratio allowed. masterMALO stops getting louder before the master gets crushed.

WHY −1 DBTP

Between two samples the real waveform can peak higher than either sample: a "true peak". Players and the lossy encoders the stores use (AAC, MP3, Opus) turn those into distortion. A −1 dBTP ceiling, measured 4× oversampled, keeps the stream clean. Amazon asks for −2.

WHY LOUDER DOESN'T WIN

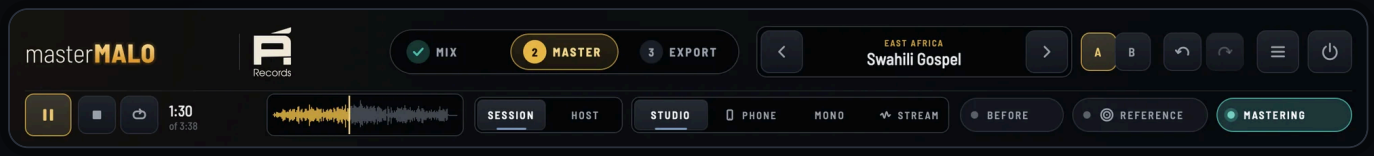
Spotify, YouTube, Apple Music and the others turn every song to the same level. A −8 LUFS master on Spotify is turned down 6 dB: it plays exactly as loud as a −14 master, only flatter. Press **STREAM** to hear it the way listeners will.

THE GUARD, IN NUMBERS

Once the limiter works, the peaks sit at the ceiling, so loudness can't go above ceiling − guard. −1 dBTP with a 9 dB guard stops at −10 LUFS. Ask for more and the export's report says "the guard held it". Lower the guard only if the style truly needs it.

11 Listening and comparing

Your ears make the final call, so masterMALO makes honest comparisons easy. Every comparison is **level-matched**: louder always sounds "better" for a few seconds, and that has fooled engineers for decades.



MONITOR: LISTEN AS

STUDIO

As is: what your file will contain.

PHONE

A phone speaker: mono, almost nothing under 300 Hz, a honky bump around 2.3 kHz, little air. **Does the bass line still come through? Is every word clear?** If the 808 vanishes, raise TRANSLATE.

MONO

Left and right summed: radio, Bluetooth speakers, club systems. A part that disappears here is out of phase.

STREAM

Plays at the level the delivery's streaming service will play it; for deliveries no service turns down (SoundCloud, Boomplay, club, CD, radio, custom), at Spotify's –14 LUFS. It only ever turns down.

COMPARE

BEFORE

The original at the same loudness: your raw stems (or your unmastered song) against the balanced, mastered version. On MIX it shows what Balance changed; on MASTER, what the master changed.

REFERENCE

Your reference song, turned to the master's loudness. Switch back and forth on the same part of both songs: the chorus against the chorus.

MASTERING

Off, you hear the balanced mix without the master: useful to judge the balance on its own. Exports are always mastered.

WHY THE PHONE CHECK MATTERS

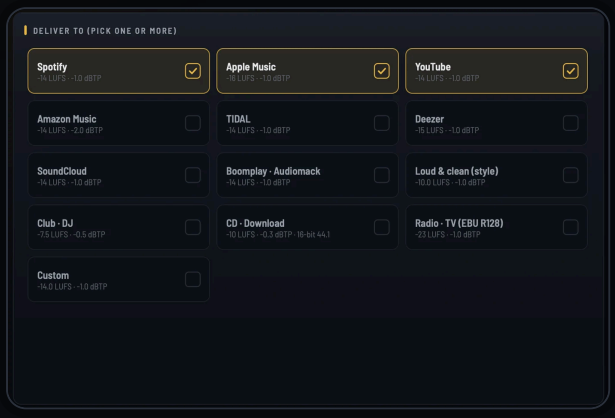
In Nairobi, Dar es Salaam, Kampala or Lagos, most people first hear a song on a phone: WhatsApp, TikTok, YouTube. A phone speaker can't play the 808's or the log drum's fundamental. If the bass only lives down there, it disappears. Translate adds harmonics a phone can play, so the ear rebuilds the bass line.

THE TRANSPORT

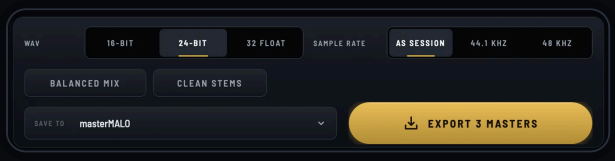
Play / pause (SPACE in the app), stop, loop. Click the waveform to jump. BYPASS (⏻, top right) turns everything off and keeps the latency, so nothing jumps in time in your DAW.

12 EXPORT

Tick every destination you need: one click makes a master for each, at its own loudness and ceiling, from the full-quality mix.



Deliver to. Gold cards are ticked. Spotify, Apple Music and YouTube are ticked at first.



The format, the extras, where the files go, and the button. It counts the masters it will make.

DELIVERY	LUFS	CEILING	WHY
Spotify	–14	–1	Plays everything at –14 LUFS: louder masters are turned down.
Apple Music	–16	–1	Sound Check plays at –16 LUFS. Send 24-bit for Apple Digital Masters.
YouTube	–14	–1	Turns louder uploads down to about –14 LUFS.
Amazon Music	–14	–2	Normalises to about –14 LUFS; asks for –2 dBTP of headroom.
TIDAL	–14	–1	Normalises to –14 LUFS.
Deezer	–15	–1	Normalises to about –15 LUFS.
SoundCloud	–14	–1	Safe streaming level; –1 dBTP for its lossy encoding.
Boomplay · Audiomack	–14	–1	The streaming standard for African platforms.
Loud & clean	style	–1	As loud as the style is played, without crushing it (page 5).
Club · DJ	–7.5	–0.5	Sound systems and DJ sets: loud and punchy, still true-peak safe (guard down to PLR 7).
CD · Download	–10	–0.3	Always 44.1 kHz, 16-bit with dither (or 32-bit float if you pick it).
Radio · TV	–23	–1	Broadcast delivery to EBU R128.
Custom	yours	yours	Your Loudness and Ceiling from MASTER.

FORMAT AND EXTRAS

WAV — 16-bit · **24-bit** · 32 float

24-bit for streaming and stores. 16-bit gets TPDF dither, a gentle noise that keeps quiet fades smooth. 32-bit float for another engineer.

SAMPLE RATE — **As session** · 44.1 kHz · 48 kHz

Changing the rate happens before the limiter, so the true peak still holds.

SAVE TO

The folder for the masters: `~/Music/masterMALO` at first. **SHOW FILES** opens it after an export.

BALANCED MIX — stems sessions

Also saves the balanced mix before mastering: 24-bit, about –18 LUFS, peaks no higher than –3 dBTP. For another mastering engineer, a video editor, or later.

CLEAN STEMS — stems sessions

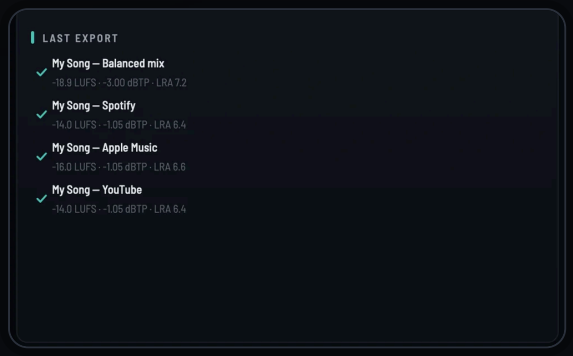
Also saves every cleaned, balanced stem (24-bit), so the mix can be rebuilt in any DAW.

ALBUM MODE — song batches

Keeps half of the songs' level differences: a ballad stays softer than the single. Off, every song hits the target.

13 Files and the report

Press EXPORT. The progress ring shows each master as it's made; CANCEL stops it. When it's done, Last export lists every file with its loudness, true peak and range.



After an export of a stems session: the balanced mix and three masters, each under its ceiling.

WHAT YOU GET

The masters	`My Song – masterMALO Spotify.wav`, `My Song – masterMALO Apple Music.wav` … one per delivery.
A report for each	`My Song – masterMALO Spotify – report.txt`, next to its master.
Balanced mix	`My Song – masterMALO mix.wav`
Clean stems	A folder `My Song stems` with `Lead Vocal – clean.wav` …

A stems session is named after the folder that holds the stems; a song keeps its file name. An export with the same name replaces the old file, so rename a master you want to keep.

THE REPORT

```
masterMALO by Paa Records — mastering report

Song:      My Song
Preset:    Swahili Gospel
Delivery:  Spotify (Plays everything at −14 LUFS: louder
           masters are turned down.)
File:      My Song – masterMALO Spotify.wav (24-bit, 48.0 kHz)

Loudness:  −14.0 LUFS integrated (before: −18.9)
True peak: −1.05 dBTP (ceiling −1.0)
Range:     6.4 LU (LRA), PLR 12.9 dB
Mono:      −1.0 LU when folded to mono (mono-safe)

How the services will play it:
  Spotify       as is
  Apple Music   turned down 2.0 dB
  YouTube       as is
  Amazon Music  as is
  TIDAL         as is
  Deezer        turned down 1.0 dB
```

A real export of the session in these pictures. Mono is how much quieter the master gets folded to mono (phones, Bluetooth speakers); past 3 LU the report warns that parts will disappear.

SEND THE REPORT WITH THE MASTER

The report answers the questions a label, a distributor or a client will ask: how loud, how much headroom, what each service does with it. When the guard kept a master under the asked loudness, the report says so, and by how much.

BEFORE YOU UPLOAD

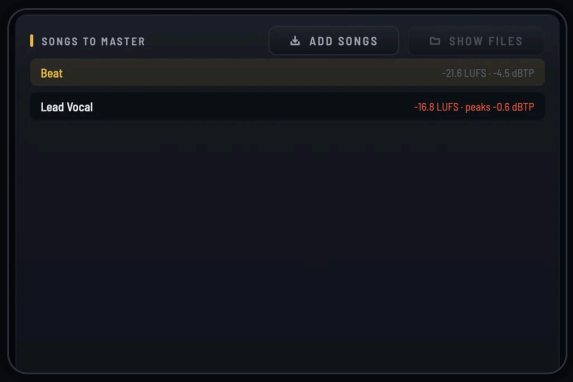
Listen to each master from the folder, start to end, on two systems: your monitors or headphones, and your phone. Check the start and the end aren't cut, and that the fade-out is smooth.

14 Songs, batches and the plug-in

MASTER FINISHED SONGS

No stems? Drop one or more finished songs on MASTER or EXPORT, or press MASTER SONGS on MIX (ADD SONGS on EXPORT, ≡ › Master songs…). masterMALO skips the mix stage and opens MASTER.

- **One style, one delivery, every song.** The style, the controls and the deliveries apply to the whole batch, in one go.
- **Click a song** in the list on EXPORT to hear it and see it on MASTER.
- **Red numbers** flag a song that already peaks over –1 dBTP: it would distort on streaming encoders as it is. masterMALO's master of it won't.
- **Album mode** keeps half of the songs' level differences (page 14).
- Each song keeps its own sample rate unless you choose one on EXPORT.

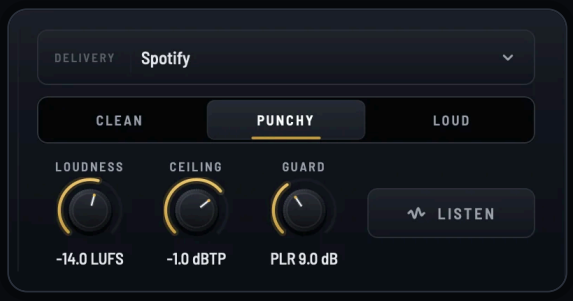


Two songs ready to master, with their loudness and true peak.

THE PLUG-IN, IN YOUR DAW

1. **Put masterMALO last on the master bus**
   Logic: the last slot of the Stereo Out. After every other plug-in, so nothing can push the peaks over the ceiling again.
2. **Leave HOST selected**
   masterMALO masters the audio of the track it sits on.
3. **Play the song**
   The first time music plays, masterMALO listens for 40 seconds by itself (LISTENING 42%); the loudest part counts most, so let the chorus play. Then: Listened: –16.2 LUFS. Tone and loudness are set for this song. Press LISTEN AGAIN to learn it again after you change the mix.
4. **Choose the delivery and shape it**
   Everything on MASTER works the same. Bounce (export) the song from your DAW as usual.

The plug-in can also import stems or songs, exactly like the app: it then switches to SESSION and plays them itself; switch back to HOST for your DAW's audio. masterMALO remembers the session in your project (the files' locations, roles, trims and the reference) and balances again when you reopen it, so keep the files where they are.



In plugin mode, LISTEN sits next to the loudness controls.

LATENCY
On the master bus masterMALO reports about 125 samples at 44.1 kHz (3 ms) for its true-peak lookahead and oversampling. Your DAW compensates it; bypass keeps it, so nothing jumps.

KEYS
In a DAW, Space and ⌘Z stay with the DAW. In the app, Space plays and pauses.

15 Recipes

Starting points that work on most songs. Pick the style, press BALANCE, then adjust with your ears, comparing with BEFORE.

Beat + vocals, the usual session — 3-5 STEMS

Bongo Flava · Kenyan Afro-pop · Afrobeats

› Check the roles: the beat is Beat, every voice its own role, returns Vocal FX.

› Balance, then compare on PHONE: every word should be clear.

› Lead too far in front? Trim it –1 dB rather than lowering Strength.

Choir and praise — GOSPEL

Swahili Gospel · Gospel — Praise & Choir · SA Gospel & Choral

› Group the choir in one or two Backing Vocals stems; split L/R files are joined.

› The lead stays on top; the choir gets a small presence dip to leave it room.

› Big, dynamic songs: Character Clean, Glue 30–40 %.

Log drum and 808 — LOW END

Amapiano — Log Drum · Gqom · Hip-Hop / Trap

› Check the roles: Log Drum, the 808 as Bass. The style decides who owns the sub: the log drum in Amapiano, the 808 in Hip-Hop, the kick in Gqom.

› These styles set Bass focus to 140–150 Hz. Translate 60–70 % for phones.

› Check MONO and PHONE: the bass line must survive both.

A song you want to sound like — REFERENCE

Any style · a reference

› Add the reference on MIX, then Balance: the levels lean toward it.

› On MASTER the gold line becomes Reference tone; Tone sets how far to go (60 % is a good start).

› Compare with REFERENCE at the same loudness, chorus against chorus.

An EP or album — BATCH

Master songs · Album mode

› Drop all the finished songs on MASTER. Pick one style for the record.

› Album mode on: the ballad stays softer than the single, as it should.

› Tick Spotify, Apple Music and Boomplay · Audiomack, then export once.

Club and DJ version — LOUD

Club · DJ · Character Loud

› Export it next to your streaming masters, never instead of them.

› Bass focus 120–150 Hz keeps the sub solid on big systems.

› Too squashed? Raise the Guard and accept a little less loudness.

Live recording, worship, acoustic — DYNAMIC

Acoustic & Live · Gospel — Worship Ballad

› Strength 60–80 %: clean it, don't flatten it.

› Noisy room mics? The diagnosis finds them; Balance cleans between phrases.

› Character Clean, Warmth 20–30 %.

Radio and TV — BROADCAST

Radio · TV (EBU R128)

› –23 LUFS, –1 dBTP: the broadcast standard.

› Send it with the report, which states the loudness and true peak.

› For a radio station that wants it "loud", ask which loudness they play at.

16 Troubleshooting

YOU SEE OR HEAR	TRY
A stem has the wrong role	Click its role chip and pick the right one, then BALANCE AGAIN. The role decides its cleaning, level and priority.
An effect return is treated as a voice	Set its role to Vocal FX. Name returns after their voice (LEAD FX, BVs FX) so they're linked to it.
The stems are out of time	Export every stem from the same start point, silence included. masterMALO aligns stems at their start.
The vocal is too loud or too soft	Use its trim fader (±1–2 dB is usually enough), or try a style from another family: vocal-forward styles put the voice higher.
The master is quieter than the target	The guard held it (the panel shows · guard; the report says by how much). Lower the Guard a little, or accept it: louder would be crushed.
The master sounds harsh or thin	Lower Tone or Tilt to the left; raise Smooth. Check the diagnosis for a ringing stem.
The bass disappears on a phone	Raise Translate; check the bass isn't only sub (the fight map's first column).
A file can't be read	The status line names it. Use WAV, AIFF, FLAC, MP3, M4A or OGG, shorter than 30 minutes.
Balance and Export show a padlock; audio is unprocessed	masterMALO isn't activated on this computer yet. Click the banner and enter your pass; see the Install & Activation Guide.
Nothing plays in the plug-in	HOST plays your DAW's audio: press play in the DAW. SESSION plays imported stems or songs with masterMALO's own transport.

SPECIFICATIONS

Formats	masterMALO app, VST3, Audio Unit
System	macOS 10.13 or later; Intel and Apple Silicon
Files in	WAV, AIFF, FLAC, MP3, M4A, OGG; up to 48 stems, 30 min each
Files out	WAV 16-bit (TPDF dither), 24-bit, 32-bit float; 44.1 or 48 kHz
Measurement	ITU-R BS.1770-4 / EBU R128; true peak 4× oversampled
Ceiling	never exceeded: every export is checked
Plug-in latency	about 125 samples at 44.1 kHz (3 ms), reported to the DAW
Masters saved in	`~/Music/masterMALO`

SUPPORT

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Tell us your macOS version, your DAW (or the app) and what you hear. A screenshot of the engineer's report or the loudness panel helps a lot.

masterMALO

One pass activates one computer. Styles describe the sound of a genre and are not affiliated with any artist or label. Streaming service names are trademarks of their owners. masterMALO is made with care by Páa Records, a Kenya-based label. © 2026 Páa Records.

Records