DOTMATRIX

DOTMATRIX / LIGHTWEIGHT AUDIO PLUGINS

# KONSŌRU

A channel strip that mixes with the whole session:
fifteen modules, one mixer, and a strip on every track that listens.




Konsōru by Dotmatrix

USER GUIDE | VERSION 1.0.0 | AU | VST3 | CLAP | macOS 10.14+ | INTEL + APPLE SILICON

Fifteen modules in any order on every track, and every strip in the song in one window.

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## — ABOUT KONSŌRU

Konsōru is a channel strip from Dotmatrix that mixes with the whole session. Fifteen modules sit in one rack, in any order you drag them into: trim, low cut, gate, a six-band EQ that can move with the music, compressor, de-esser, duck, transients, multiband, stereo, reverb, delay, modulation, warmth and a true-peak limiter. A meter between every pair shows what each one changed; COMPARE plays a module switched off at the same loudness and DELTA plays only what it adds. Put Konsōru on the tracks that matter and the lighter Konsōru Mini on the rest, and every strip finds the others by itself: one mixer window with faders, pans, solos, groups and any strip's chain. LISTEN builds a strip's chain for what it hears, UNMASK lets lower-ranked tracks step back only where a more important one plays, the bass can duck under a kick on another track with no routing, PHASE ALIGN lines up a drum kit's mics, and AUTO-MIX does the lot, with a loudness-matched before and after. AU, VST3 and CLAP for macOS, universal.

## — QUICK FACTS

| | |
|---|---|
| **Type** | A channel strip: fifteen modules in one rack, in any order, with a session link that joins every strip in the song into one mixer. |
| **Two plug-ins** | Konsōru, with all fifteen modules, for the tracks that matter; Konsōru Mini (TRIM, LOW-CUT, EQ, COMP and DUCK, no latency) for everything else. Both join the same session. |
| **Formats** | Audio Unit, VST3 and CLAP effects. Universal: Apple Silicon and Intel, macOS 10.14 Mojave or later on Intel, macOS 11 or later on Apple Silicon. |
| **Presets** | 24 factory presets for Konsōru and 14 for Mini. Your own are saved in ~/Music/Konsoru Presets. |
| **Identity** | Manufacturer Dotmatrix (Dtmx). AU codes: Knsr (Konsōru), Knsm (Konsōru Mini). |

SECTION 01

# Getting started

One strip on every track, then let them work together.

## — NEW IN VERSION 1.0

| | |
|---|---|
| **1.0** | The first release: fifteen modules in any order, a meter between each, COMPARE and DELTA, SET LEVEL, the session link and MIXER with groups and EDIT, Konsōru Mini, LISTEN with 22 roles and a plain-words report, UNMASK, DUCK from the session's kick, PHASE ALIGN, AUTO-MIX with a loudness-matched BEFORE / AFTER, the MAP, draggable EQ points, dark and light panel. |

## — INSTALLING

Copy each plug-in from the download's **Plug-Ins** folder into its folder: **~/Library/Audio/Plug-Ins/Components** (Audio Unit), **~/Library/Audio/Plug-Ins/VST3** and **~/Library/Audio/Plug-Ins/CLAP**. The release is not yet signed through Apple's developer program, so macOS needs one Terminal line before it will load it; **READ ME FIRST.txt** in the download has the exact steps. Logic Pro checks new Audio Units the first time it starts; Konsōru appears under **Audio FX > Dotmatrix**.

## — FIRST STEPS

| | | |
|---|---|---|
| 1 | **Insert them** | Put Konsōru on the tracks that matter (vocals, drums, bass, the master) and Konsōru Mini on the rest (in Logic: Audio FX > Dotmatrix). Every strip finds the others by itself. |
| 2 | **Set the level** | Play the loudest part of the song and press **SET LEVEL**: the track goes into the chain at -18 dBFS RMS, where every module expects it. |
| 3 | **Listen** | Leave **ROLE** on AUTO (or pick one) and press **LISTEN** while the track plays. After 6 s the strip builds its chain and **REPORT** says what it did. UNDO LISTEN puts it back. |
| 4 | **Shape by ear** | Click a module to open it, click its light to switch it in or out, drag it to move it. **COMPARE** hears it switched off at the same loudness; **DELTA** hears only what it changes. |
| 5 | **Mix the session** | Press **MIXER** for every strip in one window. Try **AUTO-MIX**, then flip **BEFORE** and **AFTER** and keep the one you like. |

## — BASIC HANDLING

| | |
|---|---|
| **Dials** | Drag up or down. Double-click to reset. Click the value under a dial to type one. |
| **Module tiles** | Click a tile to open its page. Click its light to switch it in or out (click-free). Drag a tile to move it; TRIM stays first and LIMITER last. |
| **Meters** | A meter sits between every pair of tiles, so you see what each module did to the level. IN and OUT at each end. |
| **The glass** | Each page draws what it does. On the EQ, drag a band's point for frequency and gain, scroll for Q, double-click for 0 dB. On the compressor, drag the curve to set the threshold. |
| **Compare, Delta** | COMPARE plays the module switched off, at the loudness it had when you pressed it. DELTA plays only the difference it makes. |
| **LCD** | The output peak, held for a second. |
| **Help line** | Hover over anything and the strip at the bottom of the panel says what it does. |
| **Light and size** | LIGHT switches to the light panel and back; every window remembers it. Drag the window's corner for any size from 60 to 200 %. |

SECTION 02

# The panel

The header, the CHAIN of fifteen tiles with a meter between each, then the open module's page and the OUTPUT bay.




| | |
|---|---|
| **Header** | MIXER, LIGHT, the preset menu with its arrows, SAVE, and the LCD. |
| **Chain** | ROLE, LISTEN and REPORT; the fifteen module tiles, each with its light, its gain change and the meter after it. |
| **Page** | The open module: its glass, ON, COMPARE and DELTA, and its controls. |
| **Output** | INPUT (TRIM's gain), OUTPUT (the fader), SET LEVEL, UNMASK, the IN and OUT RMS meters, and BYPASS. |

SECTION 03

# Dark or light

The same panel, lit two ways. LIGHT switches it; drag the window's corner for any size from 60 to 200 %.

## — LIGHT

A light panel for bright rooms. The glass, the meters, the LCD and the module lights stay lit the same way.



SECTION 04

# The rack

Fifteen modules in one chain, each with a light, a page and a meter after it.

### — ANY ORDER

Drag a tile to move its module. TRIM is always first, so everything after it works at the level it sets, and LIMITER is always last, so nothing can pass its ceiling. Moving a module dips the sound for 5 ms while it swaps.

### — CLICK-FREE, LATENCY-MATCHED

Switching a module in or out crossfades over 12 ms. The strip reports exactly the delay of what's switched on (the gate's lookahead, WARMTH's and the limiter's oversampling), and BYPASS crossfades to the dry signal delayed to match, so nothing jumps in time.

### — HEAR WHAT CHANGED

COMPARE plays a module switched off at the loudness its output had, so louder never sounds better by accident. DELTA plays only what the module adds or takes away. Both work on any module.

### — THE WORKING LEVEL

SET LEVEL listens to the last 30 s and moves TRIM so the loudest stretch goes into the chain at -18 dBFS RMS. Thresholds, drives and presets all assume that level.

SECTION 05

# Trim, Low-cut, Gate

The front of the chain: level, rumble and the gaps between notes.

## — 01 TRIM (ALSO IN MINI)

Sets the level everything after it works at, and lines up multi-mic recordings.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Gain** | -24 dB to +24 dB | 0 dB | Input gain, +−24 dB. SET LEVEL brings the loudest part of the track to -18 dBFS RMS. |
| **Polarity** | OFF, L, R, L+R | OFF | Flips the polarity of one or both channels, with a short fade so it never clicks. |
| **Swap L/R** | on / off | off | Swaps the left and right channels. |
| **Time** | 0 ms to 20 ms | 0 ms | Delays the track by up to 20 ms, to line one mic up with another. |
| **Rotate** | OFF to 2 kHz | OFF | Turns the phase round a frequency (an all-pass) without changing the tone: for mics that don't quite agree. |

## — 02 LOW-CUT (ALSO IN MINI)

Takes out rumble and sub you don't need.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Freq** | 20 Hz to 500 Hz | 80 Hz | The low-cut frequency, 20 to 500 Hz. |
| **Slope** | 6, 12, 24, 48 | 12 | Butterworth slope in dB per octave. |
| **Resonance** | 0 % to 100 % | 0 % | A bump just above the cut (not at 6 dB/oct). |

## — 03 GATE

Closes the gaps between notes and hits.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Threshold** | -80 dB to 0 dB | -50 dB | The gate opens above this level. |
| **Range** | 0 dB to +80 dB | +40 dB | How far it closes. 80 dB is silence. |
| **Attack** | 0.05 ms to 50 ms | 0.5 ms | How fast it opens. |
| **Hold** | 0 ms to 500 ms | 20 ms | How long it stays open after the level falls. |
| **Release** | 5 ms to 2000 ms | 120 ms | How fast it closes. |
| **Hysteresis** | 0 dB to +12 dB | +4 dB | It closes this far below the threshold, so it doesn't chatter. |
| **Key Hp** | OFF to 2 kHz | OFF | Filters the key: the gate ignores what's below this (a kick in the snare mic). |
| **Key Lp** | OFF to 20 kHz | 20 kHz | Filters the key: the gate ignores what's above this (cymbals in a tom mic). |
| **Ext Key** | on / off | off | Opens the gate from the sidechain input instead of the track. |

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Listen** | on / off | off | Plays the filtered key, so you can hear what the gate hears. |
| **Lookahead** | on / off | off | Opens 2 ms early so the first edge of a hit isn't lost (adds 2 ms of latency). |

SECTION 06

# EQ

Six bands. Each has the controls below; BAND 1 to BAND 6 choose which one the page shows.

### — 04 EQ (ALSO IN MINI)

Six bands that boost or cut. Any band can move with the music.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **On** | on / off | on | Switches this band in or out. |
| **Type** | BELL, LOW SHELF, HIGH SHELF, LOW CUT, HIGH CUT | LOW SHELF | Bell, low or high shelf, or a 12 dB/oct low or high cut. |
| **Freq** | 20 Hz to 20 kHz | per band | The band's frequency. |
| **Gain** | -18 dB to +18 dB | 0 dB | Boost or cut, up to 18 dB. |
| **Q** | 0.1 to 10 | 0.9 | How narrow the band is. On a cut it's the resonance. |
| **Channel** | STEREO, MID, SIDE, LEFT, RIGHT | STEREO | Which part of the stereo signal the band works on. |
| **Dynamic** | -24 dB to +24 dB | 0 dB | How far the band moves when the music in it gets loud: minus ducks, plus lifts. Full movement 12 dB over the threshold. |
| **Threshold** | -60 dB to 0 dB | -30 dB | Where the band starts to move. |
| **Attack** | 0.5 ms to 100 ms | 10 ms | How fast a dynamic band moves. |
| **Release** | 10 ms to 1000 ms | 120 ms | How fast a dynamic band comes back. |
| **Listen** | on / off | off | Plays only the band's region. |

**A DYNAMIC CUT** Set a band's GAIN to 0, DYNAMIC to -6 dB and THRESHOLD where a harsh note pokes out: the band only cuts when it's there.

SECTION 07

# Comp and De-ess

Dynamics for the body of the track and for its S's.

## — 05 COMP (ALSO IN MINI)

The compressor: three characters, peak or RMS, M/S, parallel.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Threshold** | -60 dB to 0 dB | -18 dB | Compression starts above this level. |
| **Ratio** | 1:1 to 20:1 | 3:1 | 1:1 to 20:1. |
| **Attack** | 0.1 ms to 100 ms | 10 ms | How fast it grabs. |
| **Release** | 10 ms to 2000 ms | 150 ms | How fast it lets go. |
| **Knee** | 0 dB to +24 dB | +6 dB | How gently it eases in round the threshold. |
| **Character** | CLEAN, OPTO, PUNCH | CLEAN | CLEAN follows the times exactly. OPTO slows its release as it lets go, for a smooth glue. PUNCH lets the front of a hit through. |
| **Detect** | PEAK, RMS, HYBRID | PEAK | What it listens to: peaks, average level, or halfway. |
| **Makeup** | -12 dB to +24 dB | 0 dB | Gain after the compressor. |
| **Auto Gain** | on / off | off | Adds back about half the level the settings take off. |
| **Mix** | 0 % to 100 % | 100 % | Parallel compression: dry against compressed. |
| **Channel** | STEREO, MID, SIDE, DUAL | STEREO | Linked stereo, mid only, side only, or each side on its own. |
| **Ext Key** | on / off | off | Compresses from the sidechain input. |
| **Key Hp** | OFF to 500 Hz | OFF | Keeps the lows out of the detector, so the bass doesn't pump everything. |

## — 06 DE-ESS

Tames the S, not the voice.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Freq** | 2 kHz to 14 kHz | 6.5 kHz | Where the S sits. |
| **Threshold** | -60 dB to 0 dB | -30 dB | The S level where it starts. |
| **Range** | 0 dB to +24 dB | +8 dB | The most it ever takes off. |
| **Mode** | SPLIT, WIDE | SPLIT | SPLIT turns down only the top; WIDE turns down the whole voice for the moment of the S. |
| **Listen** | on / off | off | Plays exactly what it removes. |

SECTION 08

# Duck and Transients

Movement on the grid or from another track, and the shape of each hit.

## — 07 DUCK (ALSO IN MINI)

Pumps on the grid or from a sidechain.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Source** | GRID, SIDECHAIN, KICK | GRID | GRID ducks in time with the song. SIDECHAIN ducks from the sidechain input. KICK ducks under the session's kick (the strip whose ROLE is KICK): no cable needed. |
| **Length** | 1/32 to 2 bars (13) | 1/4 | One duck every note of this length. |
| **Depth** | 0 dB to +40 dB | +12 dB | How far it ducks. |
| **Attack** | 0 ms to 50 ms | 2 ms | How fast it goes down. |
| **Recovery** | 5 % to 100 % | 60 % | How much of the note it takes to come back. |
| **Curve** | -100 % to +100 % | 0 % | The shape of the way back: minus comes back early, plus holds down and swells late. |
| **Focus** | FULL, LOWS, HIGHS | FULL | Duck everything, only the lows, or only the highs. |
| **Split** | 40 Hz to 2 kHz | 150 Hz | Where LOWS and HIGHS divide. |
| **Key Level** | -60 dB to 0 dB | -24 dB | In SIDECHAIN, the level that sets off a duck. |

## — 08 TRANSIENTS

Punch and body, set apart.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Attack** | -12 dB to +12 dB | 0 dB | More or less of the front of each hit. |
| **Sustain** | -12 dB to +12 dB | 0 dB | More or less of the body and tail. |
| **Speed** | 0 % to 100 % | 40 % | How long it thinks a hit lasts: low for clicks, high for booms. |
| **Focus** | FULL, LOW, MID, HIGH | FULL | Which band it listens to when it finds the hits. |
| **Output** | -12 dB to +12 dB | 0 dB | Level after the shaper. |

**BASS UNDER THE KICK** On the bass, set DUCK's source to KICK: it ducks under the kick strip anywhere in the session, with no routing.

SECTION 09

# Multiband and Stereo

Three-band glue, and width that stays safe in mono.

## — 09 MULTIBAND

Three compressors, one glue.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Low / Mid** | 40 Hz to 1 kHz | 180 Hz | The first crossover. |
| **Mid / High** | 800 Hz to 12 kHz | 3 kHz | The second crossover. |
| **Low Thr** | -60 dB to 0 dB | -24 dB | This band's threshold. |
| **Low Ratio** | 1:1 to 10:1 | 2:1 | This band's ratio. |
| **Low Attack** | 0.5 ms to 100 ms | 20 ms | This band's attack. |
| **Low Release** | 20 ms to 1000 ms | 200 ms | This band's release. |
| **Low Gain** | -12 dB to +12 dB | 0 dB | This band's level after its compressor. |
| **Mid Thr** | -60 dB to 0 dB | -24 dB | This band's threshold. |
| **Mid Ratio** | 1:1 to 10:1 | 2:1 | This band's ratio. |
| **Mid Attack** | 0.5 ms to 100 ms | 10 ms | This band's attack. |
| **Mid Release** | 20 ms to 1000 ms | 150 ms | This band's release. |
| **Mid Gain** | -12 dB to +12 dB | 0 dB | This band's level after its compressor. |
| **High Thr** | -60 dB to 0 dB | -24 dB | This band's threshold. |
| **High Ratio** | 1:1 to 10:1 | 2:1 | This band's ratio. |
| **High Attack** | 0.5 ms to 100 ms | 5 ms | This band's attack. |
| **High Release** | 20 ms to 1000 ms | 100 ms | This band's release. |
| **High Gain** | -12 dB to +12 dB | 0 dB | This band's level after its compressor. |
| **Mix** | 0 % to 100 % | 100 % | Dry against compressed. The dry side runs through the same crossovers, so they line up. |

## — 10 STEREO

Wide without falling apart in mono.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Width** | 0x to 2x | 1x | 0 is mono, 100 % untouched, 200 % twice the side. |
| **Low Width** | 0x to 2x | 1x | Width below 250 Hz. |
| **High Width** | 0x to 2x | 1x | Width above 4 kHz. |
| **Bass Mono** | OFF to 400 Hz | OFF | Everything below this is mono. |
| **Mid** | -12 dB to +12 dB | 0 dB | Mid level. |

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Side** | -12 dB to +12 dB | 0 dB | Side level. |
| **Mono Guard** | on / off | on | Watches the correlation and pulls the side back before the mono sum cancels. |

SECTION 10

# Reverb, Delay, Mod

Space and movement, ducked under the dry track if you like.

## — 11 REVERB

Space that steps aside for the song.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Size** | 0 % to 100 % | 50 % | Small room to big hall. |
| **Decay** | 0.2 s to 12 s | 1.6 s | Time to fall 60 dB in the mids. |
| **Pre-Delay** | 0 ms to 200 ms | 12 ms | Gap before the room answers. |
| **Low Decay** | 0.25x to 2x | 1x | The lows' decay against the mids'. |
| **High Decay** | 0.1x to 1.5x | 0.6x | The highs' decay against the mids'. |
| **Width** | 0 % to 100 % | 100 % | The room's stereo width. |
| **Duck** | 0 % to 100 % | 0 % | The room steps back while the dry signal plays, and blooms in the gaps. |
| **Mix** | 0 % to 100 % | 20 % | Dry against room. |

## — 12 DELAY

Echoes that sit on the grid.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Sync** | on / off | on | Locks the time to the song. |
| **Time** | 1/32 to 2 bars (13) | 1/8D | The echo's note length when SYNC is on. |
| **Ms** | 1 ms to 2000 ms | 350 ms | The echo time when SYNC is off. |
| **Feedback** | 0 % to 95 % | 35 % | How many repeats. |
| **Low Cut** | 20 Hz to 2 kHz | 150 Hz | Each repeat loses its lows below this. |
| **High Cut** | 1 kHz to 20 kHz | 6 kHz | Each repeat loses its highs above this. |
| **Drive** | 0 % to 100 % | 20 % | Saturation in the feedback: the repeats roughen as they go. |
| **Ping-Pong** | on / off | off | Repeats bounce left and right. |
| **Wow** | 0 % to 100 % | 0 % | Slow pitch drift, like a tape echo. |
| **Duck** | 0 % to 100 % | 30 % | Repeats step back while the dry signal plays. |
| **Mix** | 0 % to 100 % | 20 % | Dry against echoes. |

## — 13 MOD

Chorus, flanger, phaser, tremolo and pan from one LFO.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Mode** | CHORUS, FLANGER, PHASER, TREMOLO, AUTOPAN | CHORUS | What the LFO moves. |
| **Sync** | on / off | off | Locks the LFO to the song. |
| **Length** | 1/32 to 2 bars (13) | 1/4 | One LFO cycle every note of this length, when SYNC is on. |
| **Rate** | 0.02 Hz to 20 Hz | 0.6 Hz | LFO speed when SYNC is off. |
| **Depth** | 0 % to 100 % | 50 % | How far it moves. |
| **Feedback** | 0 % to 90 % | 30 % | Resonance, for the flanger and phaser. |
| **Mix** | 0 % to 100 % | 50 % | Dry against moved. |

SECTION 11

# Warmth and Limiter

Colour at the same loudness, and a ceiling nothing crosses.

## — 14 WARMTH

Analogue colour at the same loudness.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Model** | TAPE, IRON, VALVE, PENTODE, CONSOLE, DIODE | TAPE | TAPE soft and a little smeared; IRON thickens the lows; VALVE adds even harmonics; PENTODE is firmer; CONSOLE is clean until pushed; DIODE is bright and edgy. |
| **Drive** | 0 dB to +24 dB | +6 dB | How hard it's driven. It keeps its own loudness, so more drive is more colour, not more level. |
| **Bias** | 0 % to 100 % | 0 % | Tilts the curve so one side clips first: more even harmonics. |
| **Tone** | -100 % to +100 % | 0 % | Darker or brighter, round 1 kHz. |
| **Wow** | 0 % to 100 % | 0 % | Tape only: slow pitch drift. |
| **Mix** | 0 % to 100 % | 100 % | Dry against coloured (the dry is delayed to line up). |
| **Oversample** | 2X, 4X, 8X | 4X | Oversampling for the curves. 4x keeps the fold-back below -100 dB on hard drive; 8x for the last of it. |

## — 15 LIMITER

Loud and clean, with a ceiling it never crosses.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Gain** | 0 dB to +24 dB | 0 dB | How hard it's pushed. |
| **Ceiling** | -12 dB to 0 dB | -1 dB | The output never goes over this. |
| **Release** | 1 ms to 1000 ms | 60 ms | How fast it recovers. |
| **Lookahead** | 0.5 MS, 1.5 MS, 5 MS | 1.5 MS | How far ahead it looks. Longer is smoother on bass, and adds latency. |
| **True Peak** | on / off | on | Catches the peaks between samples too. |
| **Character** | CLEAN, IRON, VALVE, TAPE | CLEAN | A touch of colour before the limiter. |
| **Clip** | 0 % to 100 % | 0 % | An anti-aliased clipper in front: it takes the sharpest peaks so the limiter works less. |
| **Oversample** | 1X, 2X, 4X, 8X | 2X | Oversampling for the character and the clipper. |

SECTION 12

# The session

Every Konsōru and Konsōru Mini in the song finds the others by itself. Nothing to route or set up.

## — MIXER

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Mixer** | key, or M | | Every strip in this session in one window. In the mixer this key reads MAIN and takes you back to the strip. |
| **Strips** | view | | Each strip's name (double-click to rename) and colour, group A to H (faders in a group move together), pan, mute, solo (alt-click: solo-safe, for buses and the master), the output meter, the fader, latency, and EDIT. |
| **Edit** | key | | Opens another strip's chain in this window. Everything you turn goes to that strip; BACK returns to this one. |
| **Map** | view | | The mix as a stage seen from the audience (left to right is pan, nearer is louder; drag a strip to pan it and move its fader), or FREQUENCY: each strip's eight bands and what UNMASK takes out. |

## — LISTEN

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Role** | AUTO, or one of 22 | AUTO | What's on this track. AUTO guesses from the track's name, then from its sound when you LISTEN. |
| **Listen** | key | | Play the track (its busiest part if you can). It hears 6 s, then builds the chain for the role: level, low-cut, cuts on rings, tone, de-esser, compressor, gate and, on the master, the limiter. |
| **Report** | key | | What the last LISTEN did, and why, in plain words. |
| **Undo Listen** | key | | Puts every setting back as it was before the last LISTEN. |

## — UNMASK, THE KICK AND PHASE

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Unmask** | mixer view | | Rank the strips: who carries the song. A lower strip steps back only in the bands where a higher one plays, and only while it plays. |
| **Unmask knob** | 0 to 100 % | 50 % | In each strip's OUTPUT bay: how far it steps back, up to 9 dB. Buses, the drum bus and the master take no part. |
| **Duck from the kick** | DUCK source KICK | | The kick strip publishes its hits to the session; any strip's DUCK can follow them. |
| **Phase Align** | key | | With the whole kit playing, press it: every drum mic with Konsōru on it is lined up with the overheads (or the snare), in time and polarity, through each strip's TRIM. |

## — AUTO-MIX

In the mixer, AUTO-MIX asks four questions (how wet, four to the floor, how wide, how long to listen). Play the song: every strip LISTENs, builds its chain and measures its level, and the faders are set so each role sits at its usual distance from the lead vocal. UNMASK goes on, a four-to-the-floor bass ducks under the kick, pairs and pads are spread, and reverb is added if you asked for it. A report lists every move.

| CONTROL | RANGE | DEFAULT | WHAT IT DOES |
|---|---|---|---|
| **Before, After** | keys | | Flip between the session before the AUTO-MIX and after it, matched in loudness, as often as you like. Keep the one you prefer. |
| **Undo Auto-mix** | key | | Every strip back as it was before the last AUTO-MIX. |

**YOUR MOVES STAY** Move a fader after an AUTO-MIX and run it again: your move is kept on top of the new balance.

SECTION 13

# Presets

24 factory presets for Konsōru and 14 for Konsōru Mini, by what they're for. Each sets the modules it needs and the chain order. SAVE stores your own; the preset menu lists them, and lets you rename or delete them.

| CATEGORY | 39 PRESETS |
|---|---|
| **Start** | Empty Strip, Clean Up |
| **Vocals** | Lead Vocal, Backing Vocals, Spoken Word |
| **Drums** | Kick Punch, Snare Crack, Overheads, Drum Bus Glue |
| **Instruments** | Bass Tight, Bass Under Kick, Acoustic Guitar, Electric Rhythm, Piano |
| **Synths** | Pumping Pad, Lead Synth Width, Phased Keys, Tremolo Guitar, Tape Echo Dub, Lo-Fi Radio |
| **Buses** | Mix Bus Gentle, Master Loud, Master Open, Parallel Smash |
| **Konsōru Mini** | Empty Strip (Start), Clean Up (Start), Vocal (Voices), Backing Vocals (Voices), Kick (Drums), Snare (Drums), Toms (Drums), Overheads (Drums), Bass (Instruments), Bass Under Kick (Instruments), Guitar (Instruments), Keys (Instruments), Pumping Pad (Instruments), Bus Glue (Buses) |
| **Yours** | Every preset you save: ~/Music/Konsoru Presets (Mini: ~/Music/Konsoru Mini Presets) |

## — RECIPES

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|---|---|---|
| **01** | **A vocal in one press** | Konsōru on the lead vocal, ROLE AUTO, LISTEN in the chorus. Then open COMP and use COMPARE to hear what it does at the same loudness. |
| **02** | **Kick and bass** | On the bass, **Bass Under Kick** ducks its lows on every beat. With a strip on the kick too, set DUCK's source to **KICK**: the bass follows the real hits, no sidechain routing. |
| **03** | **Clear the vocal** | Rank the lead vocal first in the mixer's UNMASK view and switch UNMASK on: keys and guitars step back only where the voice is. |
| **04** | **A tight kit** | Konsōru on every drum mic, ROLE set (or named Kick, Snare, OH…), the whole kit playing, then PHASE ALIGN. |
| **05** | **A first mix** | A strip on every track, AUTO-MIX, then BEFORE / AFTER. Keep it, and build from there. |

SECTION 14

# Reference and troubleshooting

## — TECHNICAL NOTES

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| **Signal path** | Fifteen modules processed in 32-sample chunks, in the order shown. Bells are magnitude-matched to the analogue response up to Nyquist; WARMTH and the limiter oversample up to 8x; the limiter detects true peaks at 4x. |
| **Latency** | Only what's switched on: the gate's 2 ms lookahead, WARMTH's and the limiter's oversampling and lookahead. Reported exactly to the host. Konsōru Mini has none. |
| **The session** | Strips share one block of memory on your Mac. Nothing is sent over a network, nothing waits on a lock, and the audio thread never allocates. A strip that's removed leaves the mixer at once. |
| **Hosts** | Tested in Logic Pro and Ableton Live 12. A host that runs each plug-in in a sealed sandbox may keep strips apart; the mixer says so. |
| **CPU** | All fifteen modules on at their defaults: about 7 % of one core (Apple Silicon, 48 kHz). |
| **Not in 1.0** | Telling buses and the master apart by sound (they're found by role and name), and a mix profile built from a reference track. |
| **Compatibility** | Universal (Apple Silicon and Intel). VST2 is not available: Steinberg no longer licenses it. CLAP is built with the open-source clap-juce-extensions. |
| **Trademarks** | All product names are trademarks of their respective owners. Dotmatrix is not affiliated with or endorsed by any of them. |

## — TROUBLESHOOTING

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|---|---|
| **The mixer shows only one strip** | The others need Konsōru or Konsōru Mini on them. A sandboxed host may keep strips apart; the mixer says when it does. |
| **LISTEN did nothing** | It needs 6 s of the track playing. Start the song, then press LISTEN. |
| **The wrong role** | AUTO guesses from the track's name. Name the track, or pick the ROLE, then LISTEN again. |
| **A track got quieter by itself** | UNMASK is stepping it back where a higher-ranked strip plays. Turn its UNMASK knob down, or rank it higher. |
| **SET LEVEL says it needs to hear the track** | Play the loudest part of the song first, then press it. |
| **It does not appear in Logic** | Run the Terminal lines in READ ME FIRST.txt, then restart Logic. In Logic > Settings > Plug-in Manager, select it and click Reset & Rescan Selection. |




**Konsōru by Dotmatrix**

Lightweight audio plugins. Documentation for version 1.0.0.