

Desert Moon Audio

TRANS-BOX

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Transient Smack / Girth Box · Stereo Transient & Body Control



A snare in a finished mix usually has two helpers: a send to a transient shaper for the stick, and a send to a hard compressor for the body. Trans-Box is both of them in one box, time-aligned. SMACK and SUSTAIN shape the hit and what follows it, GIRTH puts meat underneath, and GUARD makes sure none of it ever clips. Five knobs and a bypass.

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A NOTE ON THE DESIGN

Trans-Box is an original Desert Moon Audio design. Its detector responds to the shape of a hit, not to how loud it is, so the same settings work on a ghost note and a rimshot, on a quiet take and a hot one — and the hi-hat bleeding into the snare mic is left where it is.

1.1 What Gets Installed

FORMAT	LOCATION
Audio Unit	/Library/Audio/Plug-Ins/Components/Trans-Box.component
VST3	/Library/Audio/Plug-Ins/VST3/Trans-Box.vst3
AAX	/Library/Application Support/Avid/Audio/Plug-Ins/Trans-Box.aaxplugin
VST3 (Windows)	C:\Program Files\Common Files\VST3\Trans-Box.vst3
AAX (Windows)	C:\Program Files\Common Files\Avid\Audio\Plug-Ins\Trans-Box.aaxplugin

After installing, restart your DAW or rescan its plug-in list. Trans-Box appears under **Desert Moon Audio**. It runs on mono and stereo tracks; in stereo both sides are shaped together, so the image never moves.

2.1 Five Minutes In

Put Trans-Box on a snare track and play the song. It comes up on **Front Panel**: a clear lift on the hit and a little meat under it. Now load **Snare Smack** from the preset bar. The stick jumps forward, the ring tucks in a touch and the body fills in underneath. Watch the meter: the red cursor on the lower scale swings right on every hit, showing how many decibels of smack are being added.

Press **DELTA**. What you hear now is only what Trans-Box is doing — the crack it adds and the girth under it. Turn **SMACK** up until the crack on its own sounds like too much, back off a little, and switch **DELTA** off. Then press **MATCH** and toggle **BYPASS**: the dry snare comes back at the same loudness, so what you are comparing is the punch, not the volume.

If the snare rings too long, turn **SUSTAIN** left. If it needs weight, turn **GIRTH** up — it has already tuned itself to the drum.

2.2 Resizing

Drag the window's corner. The panel keeps its shape and every control scales together.

DEFAULTS

Double-click **SMACK** or **SUSTAIN** to return it to zero; **GIRTH**, **OUTPUT** and **MIX** return to their resting positions. **BYPASS** is the host's own bypass, and the bypassed signal is delayed by exactly the plug-in's latency, so every comparison is sample-aligned.

1.2 The 14-Day Trial

Trans-Box runs **fully featured for fourteen days** from the first time it loads — every control, every preset, nothing muted and nothing held back. The strip along the bottom edge of the panel — **TRIAL – 14 DAYS** — counts the days down. When the trial ends the plug-in stays in your sessions but passes audio through dry until a license is entered, so a session opened later is never damaged — just dry. Licenses are sold at **desertmoonaudio.com**.

1.3 Entering Your License

Your license key is in the order email: one long line beginning DMA1-. Click that strip, paste the key in and press **Activate**. The first activation on a machine takes one quick internet check, which registers this computer against your key; from then on the plug-in runs fully offline, apart from its once-a-day update check. There is no account and no dongle. One key covers every format — Audio Unit, VST3 and AAX — and is kept in
~/Library/Desert Moon Audio/Trans-Box/ on macOS.

1.4 Seats and Moving Machines

One key activates **up to four computers you personally own** — a studio desktop, a laptop and a couple of spares. To move to a new machine, open the preset bar's menu on the old one and choose **Deactivate This Machine...**; that hands the seat back at once and returns that copy to trial mode. If the old machine is gone — sold, wiped or dead — write to **info@desertmoonaudio.com** with your order number and the seat is released by hand.

1.5 Updates and Support

Updates are free for as long as you own the plug-in. Trans-Box checks once a day for a newer version and shows a small notice on the panel when one exists; download the current installer and run it over the top — nothing needs to be uninstalled and your presets stay where they are. Questions, problems or a lost key:
info@desertmoonaudio.com.



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|---|---|
| <p>1 Preset bar — step, name window, A/B, undo, redo, save, revert, menu.</p> <p>2 Meter — output peak on the top scale, SMACK on the bottom.</p> <p>3 GUARD — lights when the output ceiling catches a peak outright.</p> <p>4 SQUEEZE — lights as the girth compressor works.</p> <p>5 BYPASS — the host's bypass, with its pilot LED.</p> | <p>6 DELTA — hear only what Trans-Box adds or takes away.</p> <p>7 MATCH — makes BYPASS level-matched.</p> <p>8 SMACK — the hit: add crack, or soften it.</p> <p>9 SUSTAIN — what follows the hit: open the ring, or tighten it.</p> <p>10 GIRTH — body underneath, tuned to the drum.</p> <p>11 OUTPUT — level, ± 12 dB.</p> <p>12 MIX — time-aligned blend with the dry signal.</p> |
|---|---|

3.1 One Box, Two Jobs

The left half of the knob row is the transient shaper: **SMACK** for the hit and **SUSTAIN** for what follows it. **GIRTH** is the body compressor that would normally live on a send, folded in and time-aligned. **OUTPUT** and **MIX** finish the job, and **GUARD** watches the result at the very end of the chain. Nothing on the panel needs setting to the input level: the detector reads the shape of each hit, not its loudness.

4.1 The Signal Path

The track is oversampled — 4× at 44.1 and 48 kHz, 2× at 88.2 and 96 kHz, not at all from 176.4 kHz up — and goes two ways: to the detectors, and to the audio path, which runs 0.8 ms behind them. The audio is split into three bands, each band's gain is set by SMACK and SUSTAIN, the bands are summed back together, the GIRTH return is added underneath, MIX blends in the time-aligned dry and OUTPUT sets the level. GUARD comes last. With every knob at zero the whole thing is a pure delay.

4.2 Smack and Sustain

A fast envelope and a slow envelope follow the drum, and the distance between them *in decibels* is the transient. Because it is a ratio rather than a level, a ghost note gets the same shape as a rimshot. The 0.8 ms lookahead means the gain is already up when the stick lands, so the first half-cycle — the part that *is* the smack — gets shaped instead of slipping through. The gain moves at different speeds in each band: about 3.5 ms below 110 Hz, 0.6 ms through the body and 0.3 ms on top, because fast gain on low notes is what makes transient shapers crunch. The smack leans toward the crack and eases off the lows, so more SMACK means more stick, not more boom.

Trans-Box also keeps track of how loud this track's own hits are. Anything 18 to 30 dB below them gets progressively less shaping, so hi-hat bleed and the noise floor stay put and SUSTAIN never drags hiss up. The detector only listens above 120 Hz, so a kick bleeding into the snare mic cannot fire it.

4.3 Girth

GIRTH is a band on the drum's own fundamental feeding a fast 6:1 compressor, blended in underneath. Its threshold follows the band's own peaks, so a setting gives the same squash at any level, and it listens through the same lookahead, so it adds body and decay *under* the smack instead of blunting it. It tunes itself: each hit's ring is pitch-tracked and the band glides to the result — a snare's shell lands around 190–240 Hz, a kick around 50–60 Hz, a floor tom around 90 Hz — and hits with no clear pitch leave the tuning alone. Its release follows the playing, about 40 % of the time between hits, from 60 to 450 ms: fills stay tight and half-time grooves bloom.

4.4 Guard

GUARD holds the output at **-1 dBTP**, reading true peak between the samples. It works in two layers, because a plain limiter on a transient shaper takes back exactly the smack it added. First it rides the whole output down, like pulling a fader — settling in 40 ms, holding for two seconds after the last hit that needed it, then drifting back up at 1 dB per second — so hits and tails move together and the smack survives. Then a lookahead true-peak limiter catches whatever the ride has not reached yet, such as the first hit of a loud passage. Below the ceiling both are idle.



SMACK, SUSTAIN, GIRTH, OUTPUT and MIX, left to right.

SMACK -10 ... +10 · rest 3

The hit. Right adds smack — the stick, the crack, the punch — up to +15 dB of attack. Left softens it, down to -24 dB. The same shape on ghost notes and rimshots, and the hats bleeding into the mic are left alone. Double-click for zero.

SUSTAIN -10 ... +10 · rest 0

What comes after the hit. Right opens up the ring and the room, up to +18 dB of body; left tightens it, down to -29 dB of ring — like a gate that never chatters. Double-click for zero.

GIRTH 0 ... 10 · rest 3

The fat compressor send, built in and time-aligned: a hard, fast compressor on the drum's own body, blended in underneath the smack. Thickness without mud, and it never blunts the hit.

OUTPUT ±12 dB · rest 0 dB

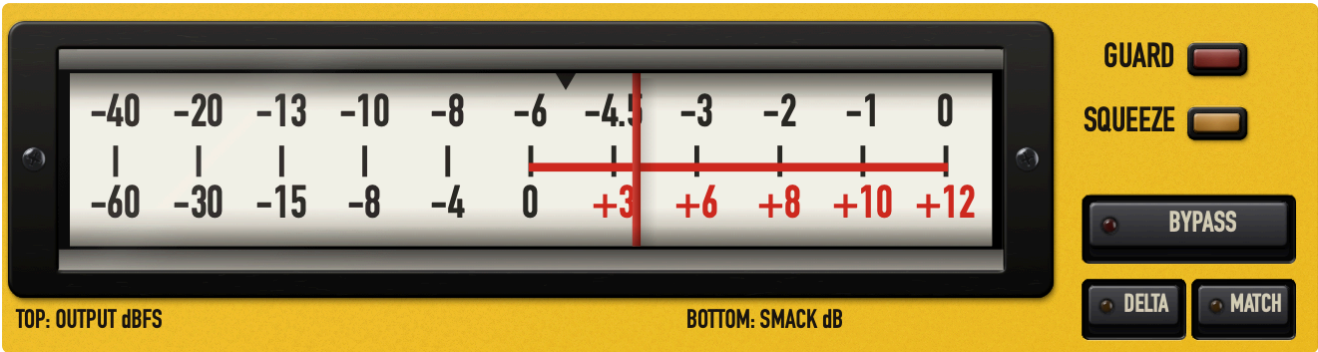
Output level. However high it is set, the output never passes -1 dBTP: GUARD rides it down if the smacked hits would.

MIX 0 ... 100 % · rest 100 %

Parallel blend with the dry signal. Time-aligned, so it never comb-filters. 100 is Trans-Box alone; lower settings give a parallel blend on a drum bus without a second channel.

SETTING THEM order

SMACK first, with DELTA on. Then SUSTAIN for the length of the drum, then GIRTH for its weight. OUTPUT last, with MATCH on, so the level is judged against the dry at the same loudness.



The edgewise meter with GUARD and SQUEEZE beside it, and the BYPASS, DELTA and MATCH keys.

BYPASS host-linked

The host's own bypass, with a pilot LED. It ramps over 30 ms so it never clicks, and the bypassed signal is the input delayed by exactly the reported latency, so a comparison is sample-aligned.

MATCH listening aid

Makes BYPASS level-matched: while bypassed, the dry signal comes back at the processed loudness, measured over about two seconds and within ± 18 dB. Louder always sounds better; MATCH takes that out of the decision.

DELTA listening aid

Plays only the difference Trans-Box makes: the smack it adds (or takes away) and the girth under it. DELTA plus the dry signal is exactly the processed output. The fastest way to set SMACK and GIRTH without going too far.

THE METER two scales

The black pointer on the top scale is the output peak, from -40 to 0 dBFS. The red cursor on the bottom scale is SMACK — what is being done to the hit, in dB, from -60 to +12. Right of 0 is smack added; left is smack taken away.

GUARD lamp

Lights when the ceiling has to catch a peak outright. Hover over it to see how far GUARD is riding the output down right now.

SQUEEZE lamp

Lights as the girth compressor works. Hover over it to see the note GIRTH has tuned itself to and the release it has chosen.

LISTENING AIDS

MATCH and DELTA change how you listen, not how it sounds. They cannot be automated and are never saved in a preset or an A/B slot.



The preset bar: previous, next, the readout, A/B, undo, redo, save, revert, menu.

The bar across the top carries the whole preset system. Arrows step through the factory bank and then your own; the readout names what is loaded, with a dot once a control has moved; click it for the full menu. **A/B** flips between two scratch settings — tweak one, flip, and hear them against each other; neither is saved. **Undo** and **redo** walk the edit history independently of the host's — a knob drag is a few steps, a preset load is one. The disk saves under a name; the ring puts back the loaded preset; the stacked bars open the menu.

Saved presets live in ~/Library/Desert Moon Audio/Trans-Box/Presets as .tapreset files — plain XML, safe to share, visible from every host. BYPASS, DELTA and MATCH are not part of a preset.

7.1 The Factory Bank

Front Panel Everything at rest: a clear lift on the hit and a little meat under it. SMACK 3 · SUSTAIN 0 · GIRTH 3	Snare Smack The reason the box exists: the stick jumps out, the ring tucks in a touch, the body fills in underneath. SMACK 6 · SUSTAIN -1 · GIRTH 4.5
Backbeat Girth More girth than smack: the fat backbeat. SMACK 4.5 · SUSTAIN 1 · GIRTH 7.5 · OUTPUT -2 DB	Crack & Tight Crack forward, ring gone. Dry, tight and modern. SMACK 7 · SUSTAIN -5 · GIRTH 2
Fat Rimshot A big rimshot with the shell ringing out behind it. SMACK 5 · SUSTAIN 2.5 · GIRTH 8 · OUTPUT -2 DB	Smack Send For the smack send in a mix template: all attack, nothing else. SMACK 8 · SUSTAIN -3 · GIRTH 0
Girth Send For the compressor send: all body, the hit tucked underneath. SMACK -3 · SUSTAIN 2 · GIRTH 9	Kick Knock Kick drum: the beater forward, the boom shortened. SMACK 6 · SUSTAIN -3 · GIRTH 3
Tom Thunder Toms: the hit and a long, fat decay. SMACK 4 · SUSTAIN 4.5 · GIRTH 6 · OUTPUT -2 DB	Room Blow-Up Overheads or rooms: the attack softened, the room blown open. SMACK -2 · SUSTAIN 7 · GIRTH 5 · OUTPUT -4 DB
Soften The Stick Too much stick, too much click: rounded off, body kept. SMACK -6 · SUSTAIN 1 · GIRTH 3	Drum Bus Punch The drum bus: gentle and blended. SMACK 3.5 · SUSTAIN 0.5 · GIRTH 3.5 · MIX 60 %
Pick & Hammer Acoustic guitar and percussive keys: the pick and the hammer. SMACK 4 · SUSTAIN -2 · GIRTH 1	

8.1 Where It Goes

Snare: Snare Smack, then GIRTH to taste; Crack & Tight for a dry, modern snare, Fat Rimshot for a big one. **Kick:** Kick Knock — the beater forward and the boom shortened; add GIRTH if it needs more weight. **Toms:** Tom Thunder for the hit and a long, fat decay. **Overheads and rooms:** Room Blow-Up softens the attack and opens the room. **Drum bus:** Drum Bus Punch at 60 % MIX. **Acoustic guitar and percussive keys:** Pick & Hammer.

8.2 One Insert or Two Sends

On an insert, Trans-Box does the work of both sends at once, time-aligned. If your template keeps them apart, put **Smack Send** on one send and **Girth Send** on the other and balance them with the faders.

8.3 Taming, Not Only Adding

Left of centre is just as useful. **Soften The Stick** rounds off a snare with too much click; negative SUSTAIN shortens a ringy snare or a boomy kick without touching the hit, and never chatters the way a gate does.

9 Specifications

ITEM	VALUE
Formats	Audio Unit, VST3 and AAX on macOS (universal binary, native on Apple Silicon and Intel); VST3 and AAX on Windows
SMACK / SUSTAIN	+15 to -24 dB of attack; +18 dB of body to -29 dB of ring
Detection	Level-independent; 0.8 ms lookahead; three-band gain; detector above 120 Hz
GIRTH	6:1 body compressor, self-tuning; release 60–450 ms, following the playing
Output ceiling	-1 dBTP true peak (GUARD)
Oversampling	4× at 44.1/48 kHz, 2× at 88.2/96 kHz, none from 176.4 kHz
Latency	123 samples at 44.1 kHz, 132 at 48 kHz (about 2.8 ms), reported to the host
Bypass	Host-linked, 30 ms ramp, sample-aligned with the processed path
Sample rates	44.1 – 192 kHz
Channels	Mono or stereo (linked)
Trial	14 days, fully featured; then dry pass-through until licensed
License	One key, four computers, all formats; offline after activation

Desert Moon Audio

Trans-Box TB-15 · User Manual · Version 1.0.2

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