IRON GLASS_

PARALLEL TUBE EQ

V1.1

REMANENCE_

01 What it is

A five-band parallel EQ with real tube-and-transformer color — mastering-grade weight, modeled to the physics of the circuit rather than painted on at the end. Each band acts on the same input and the band outputs sum back together, so band interaction is part of the sound. The EQ is followed in series by a SPICE-modeled triode and iron-core transformer chain. Character is physics, not a static curve.

02 Install

MACOS

Run `Install Iron Glass.pkg`. It places the AU, VST3 and AAX builds in the standard system locations and signs them for Gatekeeper.

WINDOWS

Run `Install Iron Glass.exe`. It places the VST3 and AAX builds in the standard system locations.

LINUX — x86_64, VST3

No installer — unpack the tarball and copy the bundle into your user VST3 folder: `cp -r "Iron Glass.vst3" ~/.vst3/` (create `~/.vst3` if it doesn't exist). Needs only standard desktop libraries — X11, FreeType, Fontconfig, ALSA, OpenGL.

Restart your host after install. Rescan plug-ins if the host doesn't pick it up automatically.

03 Activate

First launch presents a dialog. Three paths:

- **Start 14-day trial** — full feature, no limits, no internet required.
- **Activate** — paste your `IGLIC-V1-…` license code.
- **Load from file** — pick the `.iglic` file delivered with your purchase.

Without a trial or license the plugin stays muted. State persists across sessions and hosts — offline, machine-local. The same license activates on every machine you own.

04 Bands

Each of the five bands holds the same set of controls.

FREQ

Band centre frequency. Default centres land at 100 Hz, 300 Hz, 1 kHz, 4 kHz, 10 kHz. By default the knob snaps to a Sontec-style stepped table; switch Settings → **RESOLUTION** → **FINE** for continuous frequency.

GAIN

Boost or cut, **±5 dB** by default. The **GAIN RANGE** button in the title bar opens it up to **±15 dB** for corrective moves. In **FINE** resolution the readout resolves to **0.01 dB**.

Q

Five fixed values: **0.4 / 0.7 / 1.0 / 1.5 / 2.5**. Tap a value to select. Default 1.0 — wider for broad tilts, narrower for surgical work.

SHELF / BELL

Bands 1 (100 Hz), 2 (300 Hz), 4 (4 kHz) and 5 (10 kHz) toggle freely — 1 and 2 shelf low, 4 and 5 shelf high. Band 3 (1 kHz) is always bell.

POWER LED

The small lamp at the top of each band is its bypass. **Lit** = active; **dark** = bypassed. The band's knobs and pills dim while bypassed so it reads as "off" at a glance — values stay visible so you can keep editing what you'll re-engage.

TYPE-IN — any readout

Every value readout — band gain, frequency, input/output trim — accepts a typed value. Click the readout, enter a number, press Return.

MOUSE — every knob

- **Scroll** over a knob to adjust it — hold **Ctrl/Cmd** while dragging or scrolling a gain or I/O knob for fine steps.
- **Double-click** to reset to default.
- **Alt/Option-click** flattens to default; click again to toggle back to your value — a fast per-knob A/B.

05 Filters

A pair of mastering-safety filters live in their own column to the left of the bands. Both are inserted the way real mastering hardware places them: **HPF** sits after the input trim and before the input transformer; **LPF** sits after the EQ block and before the tube. They protect the iron and the tube from out-of-band energy without taking up a band's worth of work.

HPF

Stepped high-pass — **OFF · 5 · 10 · 15 · 20 · 25 · 30 · 40 · 50 Hz**. Sits between the input trim and the input transformer, so DC and subsonic energy never reach the iron. **OFF** truly bypasses the network — no residual phase tilt at audible frequencies.

LPF

Stepped low-pass — **15 · 17.5 · 20 · 25 · 30 · 35 · 40 · 45 kHz · OFF**. Sits between the EQ sum and the tube — it shapes what the saturator sees, not just what reaches the output. Useful for keeping airy boosts from running into the tube's harmonic generator. **OFF** truly bypasses.

06 Gain staging

POWER

Round lamp at the top of the right sidebar — master bypass. **Lit** = active; **dark** = bypassed. The interface dims while bypassed.

INPUT

Pre-EQ trim, **±24 dB**. Drives the tube and iron harder as you push it up — set character here, use OUTPUT to manage post-chain level.

OUTPUT

Post-EQ trim, **±24 dB**.

LINK

Two ways to gang input and output for level-matched drive changes: click the **LINK** button to latch it, or hold **Shift** and drag either I/O knob for a momentary link. While linked, INPUT +X dB moves OUTPUT −X dB automatically (and vice versa) — drive shifts without level shifts, ideal for honest A/B with yourself.

07 Character

TUBE

Enables the triode stage. When off, the chain skips the saturator, drift envelope and grid rolloff entirely.

IRON

Enables both input and output transformers (single switch). When off, the chain runs EQ + tube directly.

COLOR

Tube character morph, 1..100. **1** = transparent low-μ makeup amp; **100** = driven 12AX7-class cascade with audible low-end bloom. Auto-makeup holds unity throughput — tone changes, not level. No effect when TUBE is off.

VOICING

Iron voicing, 1..100. **1** = baseline iron; **100** = **TIGHT** — denser lows and more harmonic content from a smaller magnetising inductance and higher primary resistance. No effect when IRON is off.

08 Title-bar controls

GAIN RANGE

±5 dB · ±15 dB. Sets the travel of every band's gain knob — ±5 for gentle mastering moves, ±15 for corrective work.

MODE

L/R · M/S. Picks the processing domain. Full behaviour on the next page.

CHANNEL LINK

LINKED · UNLINKED. Whether the two channels move together or independently. Full behaviour on the next page.

09 Presets & A/B

PRESET BAR

Centre of the title bar. Arrows step through; clicking the name opens save / load / delete, plus **Save current settings as default** and **Clear saved default**.

A / B

Two parallel parameter slots. Click **A** or **B** to switch; **A > B** copies the current A state into B — for a controlled comparison around a single change.

DEFAULT PRESET

The **Default** preset recalls Iron Glass's neutral starting point. To make it yours, dial in a starting state and choose **Save current settings as default** — every new instance and the Default preset now recall it. **Clear saved default** returns to factory neutral.

10 Settings menu

The cog icon in the title bar opens the settings drop-down.

ROW	OPTIONS & BEHAVIOUR
RESOLUTION	**STEPPED · FINE.** STEPPED snaps frequency to the Sontec-style table; FINE unlocks continuous frequency and 0.01 dB band gain.
OVERSAMPLING	**Quality vs CPU.** Shows the active factor for your session rate and toggles down one step: 4×→2× at 44.1 / 48 kHz, 2×→OFF at 88.2 / 96 kHz; at 176.4 / 192 kHz it is already native and greyed. The lower setting also clears the transformers' ultrasonic resonances.
INTERFACE	**3D · FLAT.** Visual only — the rendered panel or a flat high-contrast view. No effect on sound.
MANUAL	**OPEN.** Opens this manual — the PDF installed alongside the plugin.
LICENSE	Current license state; click to re-open activation.

11 Channel mode

MODE and **CHANNEL LINK** together decide how the band knobs route to the two channels. MODE picks the processing domain; CHANNEL LINK picks whether the channels move together or independently.

MODE — L/R

Stereo. The EQ acts on the left and right channels directly.

MODE — M/S

Mid / side. The input is matrixed to a mid (L+R) and side (L−R) signal before EQ, processed, and un-matrixed back to stereo after. Widen the highs without smearing the centre, or tighten the lows without losing width.

LINKED (default)

Band knob movements affect both channels identically. Modifier-key gestures collapse to plain linked drags — you can't accidentally diverge the channels.

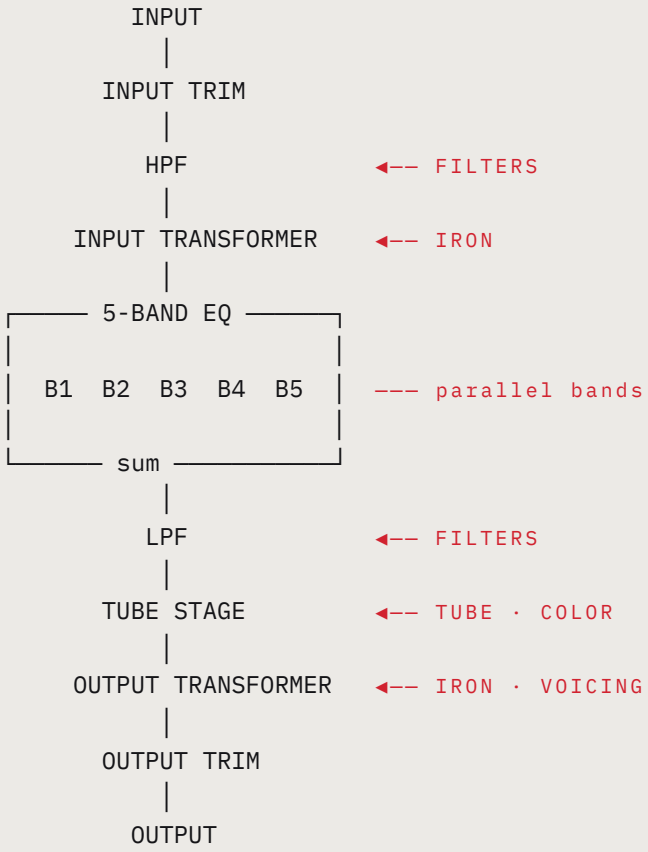
UNLINKED

Per-channel control. Each band knob holds two values, and three drag gestures route to different channels:

- **Left-click drag** — both channels as a rigid pair, preserving any offset.
- **Right-click drag** — second channel only (R in L/R, S in M/S).
- **Shift + drag** — first channel only (L in L/R, M in M/S).

The Q selector splits the same way — right-click sets the second channel, shift-click the first; shelf/bell type and the band LED stay shared. Per-channel offsets are stored in the preset and persist when you toggle CHANNEL LINK back to LINKED — re-engaging UNLINKED restores the split exactly.

12 Signal flow



Series chain, top to bottom. The EQ block is internally parallel — each of the five bands acts on the same input and the band outputs sum back together before feeding the tube. **HPF** clears subsonic energy before the input iron; **LPF** shapes what the tube sees. **IRON** toggles both transformers at once.

13 System requirements

MACOS

10.13 (High Sierra) or later. Universal binary — native on Intel and Apple Silicon.

WINDOWS

10 or later, 64-bit.

LINUX

Modern 64-bit Linux with the standard desktop libraries — X11, FreeType, Fontconfig, ALSA, OpenGL.

FORMATS

AU · VST3 · AAX on macOS, VST3 · AAX on Windows, VST3 on Linux.

SAMPLE RATES

44.1 to 192 kHz. Internal oversampling is automatic — 4× at 44.1 / 48 kHz, 2× at 88.2 / 96 kHz, native above — and adjustable in Settings → OVERSAMPLING.

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SUPPORT

support@remanenceaudio.com

EDITION

IRON GLASS OWNER'S MANUAL — v1.1