

DEMOGRAF AUDIO

Tantal Senior

Class A single-ended amplifier on tantalum 4E27 tubes, 30 W

Made by Dmitriy Gubchenko. Every unit ships with a Manufacturing Record stating its country of origin and a bill of materials.

Sound

Orchestral · opera · large-scale jazz · rock

Tantal Senior is the high-power amplifier of the Maestro series: 30 W per channel in single-ended Class A from 4E27 output tubes with pure tantalum anodes, made in the 1930s–1940s. There is no negative feedback, and the volume is set by a transformer attenuator on an Elma switch. The sound is soft and natural, with a relaxed scale and a bass that has real authority. As standard it is built as two monoblocks; an integrated single-chassis version is available. A STAX-type electrostatic headphone output is built in.

Compared with: Tantal (3C24)

Materials & build

An external power supply with four 6D22S kenotrons, galvanic isolation, power transformers and chokes feeds the amplifier. Custom-wound M034 interstage and M062 output transformers set the character of the circuit.

- Output: 2 × 4E27 tantalum pentodes, individually selected
- Driver: 2 × EF55; input: 2 × 6Zh4
- Fixed bias, no negative feedback
- Transformer volume control with Elma attenuator

COMPONENT	MANUFACTURER	COUNTRY OF ORIGIN
Output tubes 4E27 (tantalum anode)	Vintage, 1930s–1940s, selected	US / EU / UK (NOS) / Other Vintage
Driver tubes EF55	Vintage, selected	US / EU / UK (NOS) / Other Vintage
Input tubes 6Zh4	NOS, selected	US / EU / UK (NOS) / Other Vintage
Rectifier tubes 6D22S	NOS, selected	US / EU / UK (NOS) / Other Vintage
Interstage M034 / output M062 transformers	Demograf Audio (custom-wound)	or analog by Hashimoto / Tango / Tamura
Attenuator switch	Elma	Switzerland
Internal wiring: Proprietary “RareCoreFusion” Alloy	Demograf Audio	Own manufacture

Signal path

Input **RCA** → Volume **TVC · Elma** → Input stage **6Zh4** → Driver **EF55** → Output tube **4E27** → Output transformer **M062** → Output **Speakers · phones · STAX**

Specifications

Use	Universal: loudspeakers and headphones
Output power	30 W per channel at 8 Ω (4 Ω / 16 Ω winding available on request)
Series	Maestro Series
Amplifier class	Pure Class A
Channels	2 (Stereo Layout)
Input connections	Analogue RCA (Optional: Balanced XLR Stage)
Headphone outputs	6.3 mm TRS, XLR 4-pin, STAX type (Optional: 4.4 mm Pentaconn etc.)
Speaker outputs	Heavy-duty Demograf Audio speaker binding posts
Load impedance	8 Ω (Customisable to 4 Ω or 16 Ω via options)
Output tubes	2 × vintage tantalum 4E27 pentodes (1930s–1940s production, individually selected)
Driver tubes	2 × EF55 (M034 Anode-Filament Transformer Stage)
Input tubes	2 × 6Zh4
Rectifier tubes	4 × 6D22S
Volume control	Transformer volume control (TVC) with an Elma stepped switch
Internal wiring	Proprietary “RareCoreFusion” Alloy wire (other options available)
Mains	100 / 120 / 230 V — set at order time, plug to match (NEMA, Schuko, BS 1363 / type G)
Weight (with power supply)	From 75 kg / 165 lb
Dimensions	From 450 × 450 × 250 mm
Origin	Made in Kazakhstan by Dmitriy Gubchenko

Options

Circuit

- Single-ended
- Push-pull — built to order · +50%

Input tubes

- 6Zh4 tubes
- EL8 Valvo — for more detailed sound
- AL4 — for heavier bass and midrange
- EF14 — for a more natural midrange, e.g. opera and symphonic music
- ML6 — for more neutral sound

Amplifier type

- 2 Monoblocks
- Integrated Amplifier

Component upgrades

- Premium Capacitors Suite (Duelund, Mundorf, Miflex etc.)
- Tango, Tamura or Hashimoto transformers and chokes, fitted on request
- Silver AMRG Resistors & Premium Cardas Wiring Kit
- High-End Connectors Suite (e.g. Furutech Top-Tier plugs)
- Solid-core Copper Speaker Connectors
- Premium Solid-core Copper Connectors with Galvanic Gold/Silver Plating
- Integrated Tone Control Block Module / Filter
- Transformer taps for 4 or 16 Ω (additional winding)
- Bi-wiring integration supplement
- Tri-wiring integration supplement
- One additional Analogue RCA Input
- One additional Analogue XLR Balanced Input
- Demograf Audio High-End Swiss-Stepped Pre-Amp (similar to Stevens & Billington TX-103)
- Variable GAIN Control Module
- 4.4 mm Pentaconn Output Termination
- Fully Balanced XLR Amplifier Architecture
- Additional Reserve Matched Pair of low-noise Tubes

Mains inlet, outlets & contacts

- AC Input: Standard Spec — IEC C14 Chassis Input
- AC Input: Heavy-Duty Spec — IEC C20 High-Current Inlet
- AC Output: European Standard — Schuko (Type F)
- AC Output: US / Japan Standard — NEMA 5-15R (Type B)
- AC Output: British Standard — BS 1363 (Type G)
- AC Output: Universal Interface — Direct IEC C13 Outlets
- Contacts: Pure Copper Unplated (Organic & Balanced Tone)
- Contacts: Gold Plated e.g. Furutech FI-09(G) (Warmth & Rich Midrange Texture)
- Contacts: Rhodium Plated e.g. Furutech FI-09(R) (Fast Transients & Fine Detail)

Finish & chassis

- Standard configuration
- Priority build (+50% of the price)
- Precision-Milled Metal Chassis (CNC milling)
- Contoured Bent-Metal Enclosure
- Exotic Hardwood Chassis
- Glass-Integrated Aesthetic
- Premium Wood Inlays & Accents
- Solid-Billet Metal Enclosure
- Advanced Galvanic Finishing
- Custom Dimensions & Form Factor
- Parameter Status Display
- Multifunction Remote Control Suite
- Protective tube cage (child & pet safety)

Regional version

- 230 V — Schuko plug (Europe)
- 120 V — NEMA plug (North America)
- 100 V — NEMA plug (Japan)
- 230 V — BS 1363 / type G plug (UK · Middle East)

Photographs








Questions & answers

Which tubes does the Tantal Senior use?

The output tubes are vintage 4E27 pentodes with tantalum anodes, each pair measured and matched for emission and distortion. Drivers are EF55, input tubes 6Zh4, rectifiers 6D22S. A reserve matched pair of output tubes can be ordered with the amplifier.

How is the Tantal Senior serviced?

Each unit ships with its own measurement report. The circuit is kept simple and serviceable, and Demograf Audio gear is serviced for as long as parts exist.

How is it delivered?

Shipping and insurance are paid by the buyer and shown as a separate line in your quotation. Every unit is packed for long-distance transport in heavy-duty flight cases and a wooden crate.

Which mains voltage and plug?

Each piece of gear is built for 100 V, 120 V or 230 V mains with the matching plug (NEMA, Schuko or BS 1363 / type G). The voltage is fixed at order time, so tell us where the unit will be used.

How long does the Tantal Senior take to build?

Build time is six months or more from the queue deposit, depending on the configuration and the queue; delivery takes from one month after completion. The atelier builds seven instruments a year. A priority build is available for an extra 50% of the price: your unit is moved ahead in the build queue.

Ordering

- Built individually, to order. A 50% deposit places the unit in the build queue.
- Build time is six months or more, depending on the configuration and the queue.
- One-year warranty; after it, paid repair. Every unit ships with its own measurement report.
- Configuration, prices in your currency and the seller for your country: demografaudio.com
- E-mail: shop@demografaudio.com.