

DEMOGRAF AUDIO

Tantal

Class A amplifier on 3C24 tantalum-anode triodes, 3 W, with an electrostatic headphone output

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

Sound

Vocal · acoustic · chamber music · electrostatic headphones

Tantal belongs to the Maestro line and runs two 3C24 triodes with solid tantalum anodes in Class A, 3 W per channel. The 3C24 renders voices and acoustic instruments with real timbre and precise placement in space. It drives dynamic, planar and high-voltage electrostatic headphones from one chassis — a STAX-type output is built in, for headphones such as the STAX SR-007 / SR-009 or the Sennheiser HE 90. The same amplifier also drives sensitive loudspeakers.

Compared with: Tantal Senior (4E27)

Materials & build

The signal path uses Duelund capacitors in the input stage, AMRG resistors, Cardas or WBT silver solder, Furutech FP-901(G) inputs and FT-808 Gold outputs. The external supply has kenotron rectification, galvanic isolation and bespoke chokes.

- Output: 2 × 3C24 (tantalum anode)
- Input: 2 × 6Zh4; rectifier: 2 × 6D22S
- Outputs: 6.3 mm, XLR 4-pin, STAX-type, speakers

COMPONENT	MANUFACTURER	COUNTRY OF ORIGIN
Output tubes 3C24 (tantalum anode)	Vintage, selected	US / EU / UK (NOS) / Other Vintage
Input tubes 6Zh4	NOS, selected	US / EU / UK (NOS) / Other Vintage
Input-stage capacitors	Duelund	Denmark
Inputs FP-901(G), outputs FT-808 Gold	Furutech	Japan
Silver solder	Cardas / WBT	USA / Germany
Transformers and chokes	Demograf Audio (custom-wound)	or analog by Hashimoto / Tango / Tamura

Signal path

Input **RCA** → Volume **ALPS** → Input stage **6Zh4** → Output tube **3C24** → Output transformer **Custom-wound** → Output **Speakers · phones · STAX**

Specifications

Use	Universal: loudspeakers and headphones, with an E-Static output for electrostatic headphones
Output power	3 W per channel at 8 Ω (Push-Pull version with double power available on request)
Series	Maestro
Amplifier class	Pure Class A
Channels	2 (Stereo)
Inputs	Analogue RCA (Optional: Balanced XLR)
Headphone outputs	1 × 6.3 mm TRS, 1 × XLR 4-pin, 1 × STAX type (Optional: 4.4 mm Pentaconn etc.)
Speaker outputs	Standard binding posts (Demograf Audio terminals optional)
Load impedance	8 Ω (Optional: 4 Ω / 16 Ω customisation)
Output tubes	2 × 3C24 (tantalum anode)
Input tubes	2 × 6Zh4 or other types optionally e.g. EL8 / ML6 etc.
Rectifier tube	2 × 6D22S
Volume control	ALPS potentiometer (Demograf Audio stepped attenuator optional)
Internal wiring	Proprietary “RareCoreFusion” Alloy wire (other options available)
Special features	Ground Lift switch (selectable ground loop isolation)
Mains	100 / 120 / 230 V — set at order time, plug to match (NEMA, Schuko, BS 1363 / type G)
Weight (with power supply)	From 45 kg / 99 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

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
- Vintage Tubes
- 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)

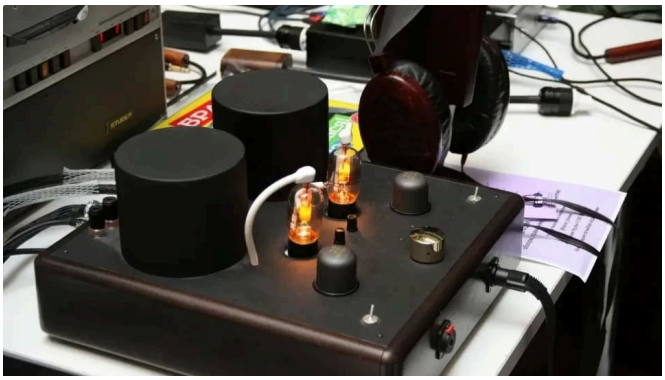
Finish & chassis

- 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 use?

The output tubes are vintage 3C24 triodes with tantalum anodes, selected and matched in pairs; the input stage uses 6Zh4 and the supply 6D22S rectifiers. A reserve matched pair can be ordered with the amplifier.

How is the Tantal 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 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.