

# 300B/2A3 SE POWER AMP KIT

TU-8900

TUBES NOT INCLUDED

Directly-heated triode tubes like the 300B and 2A3 enjoy an enduring popularity among audiophiles. The 300B with its rich midrange and extended bass - and 2A3 with its delicate expression and gentle tone - they offer a very special sonic experience. These 2 tubes, similar in appearance but very different in characteristics, can both be used in TU-8900 without any special changes in amplifier settings. Many manufacturers are producing 300B and 2A3 tubes so users can enjoy trying the various versions available in the market. \* NOTE-TUBES ARE NOT INCLUDED with THE TU-8900!





## ■ Automatic detection of 300B and 2A3 tubes

"300B" and "2A3" tubes look similar but their respective filament voltages and operating parameters are totally different. Their supply voltages need to be adjusted depending on which of these tubes are used in the same amp. In TU-8900, the tubes installed are detected automatically and the correct filament voltage and voltage of B-power are automatically set. When 300B tubes are installed, the LEDs on the sides of the volume knob will light up in blue. If 2A3 tubes are installed, the volume knob LEDs will light up in green. Additionally, these LEDs on the right and left side of the volume knob will turn red when there is excessive current due to defective tubes, etc., and the current is shut down to protect the amplifier. The red LEDs will also diagnose the problematic tube- the right side of the volume knob turns red when excess current occurs in the right channel, and vice versa.

## ■ Tube-friendly design

Warm-up time for directly-heated tubes and indirectly-heated tubes are different. In most designs, directly-heated tubes warm up faster than indirectly-heated tubes. So directly-heated tubes are often overloaded. With TU-8900, the voltage is gradually raised and reduces the level of overload to the directly-heated tubes.

## ■ 12BH7A also usable instead of 12AU7

TU-8900 is designed to use 12AU7 as voltage amplification tubes. However, 12BH7A, with high driving ability, can also be used instead of 12AU7.

## ■ Ample space for larger coupling capacitors

Coupling capacitors can have a big effect on the sound quality. For the TU-8900, high quality conductive polymer electrolytic caps and polypropylene film caps are provided. However, exchanging for other coupling capacitors is also possible. The maximum size of the caps that can fit in the space is 22mm in diameter x 44mm in length.

## ■ Matching headphone impedance/volume levels

You can change the headphone impedance/volume levels by simply removing the front panel and change the position of a short pin.





#### ■ Newly designed circuitry

The power transformer has independent windings for the right and left channel to minimize the interference between channels as much as possible. The filament power uses the latest DC-DC converter with extremely low noise and high efficiency. Schottky barrier diodes and fast recovery diodes are used as rectifying diodes that reduce even the most negligible noise spikes. Listeners can enjoy music free from noise even when using a pair of high efficiency headphones. The main circuit of the power unit is unitized per channel as a module.

## ■ Easily change the feedback setting to NON-NFB

Many triode tube amps use negative feedback in their design. The TU-8900 has an option for listeners to hear the triode tube sound without negative feedback. In TU-8900, changing the position of a short plug on the PCB can change the setting to NON-NFB. The gain level increases by approx. 8dB when NON-NFB setting.

## ■ Updated more reliable tube sockets

After brainstorming with our manufacturer, we have come up with more reliable 4-pin sockets for 300B/2A3. Tubes are mounted safely and securely when installed in these sockets.

## ■ High heat-resistant polycarbonate tube cage

The IEC (International Electrotechnical Commission) sets guidelines on thermal limits on materials and parts, such as a chassis and the tube cage. The TU-8900 tube cage top can heat up to 100 degreesC due to the heat from the output tubes. A robust polycarbonate tube cage with high heat resistance is used to meet the IEC standard.



With a tube cage

## **TU-8900 SPECIFICATIONS**

- •Tubes : 300B (or 2A3) x 2pcs, 12AU7 (or 12BH7A) x 2pcs (Tubes not included)
- \* Specifications below are with the 300B+12AU7, with NFB,  $8\Omega$  loaded
- •Rated output : 8W+8W (300B) / 3.5W+3.5W (2A3) <THD 10%>
- •Rated input : 1Vrms (300B) / 650 mVrms (2A3) •Residual noise : 15µV (IHF-A)
- •Frequency response: 7Hz-90kHz (with NFB) / 12Hz-45kHz (Without NFB)
- •Input impedance : 50kΩ
- •Output impedance : 4-6.3Ω, 8-16Ω (SW on backside)

- ●Input terminal : LINE x 1
- Output terminal
- Headphone terminal: 6.3mm headphone jack
- Speaker output terminals (L/R channel) : Gold-plated screw type terminal (Banana plug usable)
- •Power voltage: AC110-120V or AC220-240V 50/60Hz (3P inlet)
- $\bullet$ Power consumption : 95W (300B) / 65W (2A3)
- •Measurement: W356xH214xD320mm (including projections)
- •Weight : Approx. 11.4kg (excluding a power cable)

The specifications of the product are subject to change without prior notice.

The color of the product in this document may look different from the actual product.

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