

# **EKIT.** 300B SE Tube Amplifier Kit TU-8600

Limited production model \* ATTENTION! TUBES NOT INCLUDED!

The TU-8600 is a 300B single-ended tube amp kit. In pursuit of great sound quality of the 300B amp, we have updated and improved the amplification, power, and feedback circuitry. The result is an amp with amazing sound quality, super low noise, and can be used with headphones.

## Power circuit enhancements

A high efficiency, low magnetic flux leakage R-core transformer is used. The rectifier consists of a schottsky barrier diode that requires a shorter recovery time. This results in a reduction in even negligible noise spikes. The windings of the power transformer include individual windings for the filament heater (A- Power), high voltage (B-power), and bias to stabilize the Negative Feedback (NFB) circuitry(C-Power). In addition, all power is stabilized to reduce residual noise as much as possible. This results in a noise level that is as low as 1/10 of the TU-8300R.

Stable Negative Feedback (NFB) circuitry for great audio quality To make the most of the 300B tubes, the characteristics of the various parts and circuits including the OPT have been improved. NFB is applied to the cathode of the 300B by the third winding of the output transformer as well as to the voltage of the amplifying stage. Overall NFB is minimized as well as the chance for transient response.

## New active automatic bias

For 300B tube bias, the power supply is equipped separately and a "new active automatic bias" is used where the amp detects plate current and automatically adjusts the negative voltage to the grid. This design earns the TU-8600 the privileges of both self-bias and fixed bias. Also, the current detecting circuit is moved from the cathode side to the B-power side resulting in even better sound quality.

# Driving 300B tubes to full power

A very orthodox design is used for the voltage amplifying stage to bring out the outstanding characteristics of the famed 300B tubes. Of special note is the 12AU7 (ECC82) is used in parallel for the second stage to drive the 300B tubes to full power- resulting in 200Vp-p without clipping.

## Tube-friendly design

Warm-up time for directly heated and indirectly heated tubes differ. In most designs, amp power-up starts





Vith the tube cover





Parts in the kit

heating both the directly heated 300B tubes (fast warmup) as well as the indirectly-heated 12AU7 and 12AX7 (slower warm-up). In the TU-8600, the 300B tubes are heated after the indirectly-heated tubes have warmed up. A very tube-friendly design that will not overload tubes that have not warmed up fully.

Ample space for larger coupling capacitors

Capacitors can have a big effect on sound. The TU-8600 uses high quality conductive polymer hybrid electrolytic caps and polypropylene film caps. For those who wish to use other high quality caps, there is ample space provided on the PCB for mounting larger caps.

Selectable volume settings to match headphone impedance Resistors are included to select one of 4 volume output settings to match your headphone impedance.

# Safety tube cover case included



The headphone volume settings and color settings of the power LED can be changed by moving the jumper location on the PCB



ample space provided on the PCB for mounting larger caps.

# TU-8600 specifications

300B SE Tube Amplifier Kit

Tubes: 300Bx2, 12AX7x1, 12AU7x2

\*Tubes are not included!

Rated output: 9.2W + 9.2W (THD 10%)

Rated input: 320mV

Residual noise: 36µV (IHF-A)

Frequency response: 7Hz-40kHz (3dB)

Input impedance: 50k0

Output impedance: 4-6.30, 8-160 (Select

by the switch on the rear)

Input terminal: LINE x 1

Output terminal: Speaker terminal

Gold-plated screw terminal (banana plug usable)

Power voltage: AC100/200V 50/60Hz (3P inlet)

Power consumption: 90W

Dimensions: W385xH217xD325mm (excl. projections)

Weight: Approx. 12.6kg (excl. power cord)

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.

EK JAPAN's website: http://www.elekit.co.jp

EK JAPAN CO.,LTD.

Address: Tofuro-minami 2-19-30, Dazaifu-shi, Fukuoka, 818-0105, Japan Phone : +81-92-923-8235

Fax: +81-2-923-8237 E-mail: info@elekit.co.jp