

LUXMAN

VACUUM TUBE STEREO POWER AMPLIFIER
MQ-300





90 years of LUXMAN experience, intelligence and principles embodied in vacuum tubes

The MQ-300, a vacuum tube stereo power amplifier from LUXMAN, uses thoroughly selected parts and circuits to maximise the performance and tonal quality of the latest direct heated triode – the TA-300B following in the design footsteps of the masterpiece MB-300 released 31 years ago.

Since the foundation of the company 90 years ago, LUXMAN has pursued core principles for sound creation, 'honest and natural sound quality and feeling the sound field without exaggeration', 'feeling the unity of sound with sufficient data for the whole audio band', 'fatigue free listening enjoyment', all of which are embodied in the MQ-300.

By expressing the original sound, the MQ-300 brings the spirit of music inscribed in your favourite discs to life.

■ Design history

The design of the MQ-300 is a culmination of high performance parts, cutting edge technology and vacuum tube amplifier design 'know how' accumulated over many years. The MQ-300 is based on the cosmetic design and circuit configuration of the MB-300, the renowned masterpiece vacuum tube monaural power amplifier released in 1984. The elements of traditional design and elegant tonal quality that is unique to the performance of the TA-300B, a direct heated triode, have been maximised in the MQ-300. The MQ-300 exudes the quality of classic design from engraved nameplates bearing the company logos inlaid on the top of the metal coated transformer case and the luxurious piano finish natural walnut frame and other exterior parts. The MQ-300 represents the flagship model of vacuum tube amplifiers in which LUXMAN experience and cutting edge expertise come together to create a fitting model to celebrate the 90th anniversary of the foundation of the company.

■ 300B single circuit configuration

The MQ-300 is a stereo power amplifier with a single configuration 8W + 8W output. The highly reliable TA-300B (manufactured by Takatsuki Electric Industry Co., Ltd) is used as the output tube for the MQ-300 and is the only output tube that is made in Japan. The configuration of the driver section is 6SN7GTB (manufactured by Tung-Sol) two-stage parallel connection and the output section is the direct heated triode TA-300B non-feedback single power stage connection. This results in a natural and attractive tonal quality with rich musicality that is characteristic of the TA-300B. A cathod-bias type is used for the output stage which has less change in characteristics due to heat or voltage fluctuation. The DC-ignition method for heaters that suppresses hum generation is used for the 6SN7GTB and TA-300B ensuring sound quality and durability.



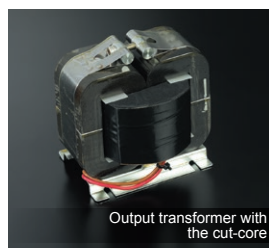
Nameplate of transformer printed with classic parts



TA-300B manufactured by Takatsuki Electric Industry Co., Ltd.

■ Large capacity output transformer

The orient cut-core large capacity output transformer with aligned magnetic fields as part of the output section supplies stable energy to the whole audio band even at the maximum power level. The logo nameplates inlaid on the top of the casings and the structure that is reminiscent of the classic OY type transformer produce a design with impact.



Output transformer with the cut-core

■ Independent right and left power supply circuits

FINEMET* core material featuring low magnetic core loss and low magnetic distortion is used for the choke coil to achieve the expansive and natural sound quality. Complete independence of the right and left of the rectifying tube that includes the secondary winding of the power supply transformer, choke coil and block capacitor achieve high level separate performance.



Choke coil with FINEMET

■ Rectifying tube and voltage amplifier tube

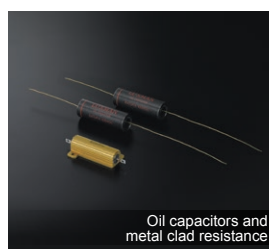
The Sovtek indirectly heated tube, the 5AR4 is selected as the rectifying tube, featuring low internal impedance and excellent regulation resulting in the gentle start-up of the power supply and thereby prolonging the life of the vacuum tube. A highly reliable TUNG-SOL 6SN7GTB that can withstand a high voltage load is used for the voltage amplifier tube.



Rectifying tube 5AR4 and voltage amplifier tube 6SN7GTB

■ Coupling capacitor and cathode resistance

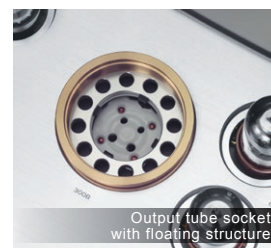
LUXMAN's proprietary oil capacitors are used as coupling capacitors for connecting circuits resulting in smooth sound quality. Dale non-inductive metal clad resistors are used for the cathode resistances on the output stage to avoid inductive components that may have a harmful effect on transmission signals.



Oil capacitors and metal clad resistance

■ Output tube socket with floating structure

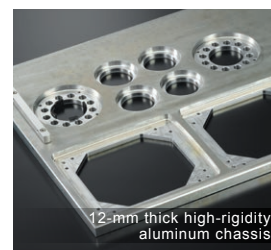
The output tube socket section with decorative rings has a floating support structure made of PORON which has excellent vibration damping and heat resistance to control microphonic noise. For lug terminals for wiring, large-sized steatite parts are used to provide outstanding insulation, heat resistance and durability.



Output tube socket with floating structure

■ High rigidity aluminium chassis

For vacuum tubes design where electrons fly about, external vibration and resonance can be great enemies that can interfere with sound signal transmission. The MQ-300 combats this with a high rigidity chassis structure that combines a 1.6mm thick steel chassis, 2mm thick bottom board and a 12mm thick top panel to block such vibrations.



12-mm thick high-rigidity aluminum chassis

■ High grade large size terminals

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Impedance independent speaker terminals

*FINEMET is a registered trademark of Hitachi Metals, Ltd.

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Operation switch

*The product has a bonnet on the vacuum tube section.



Input

Speaker terminals(4Ω, 8Ω,16Ω)

AC inlet

*Rear panel : European Model

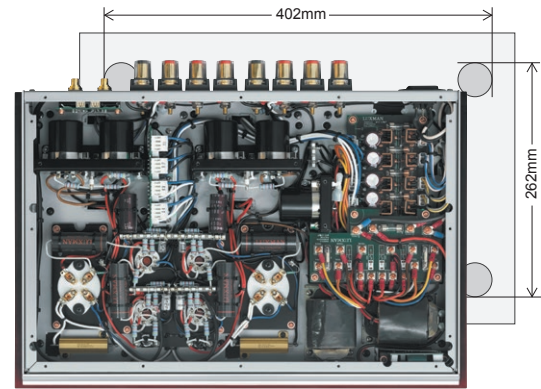
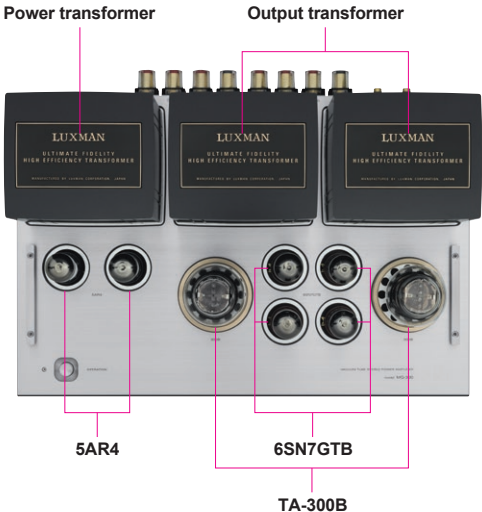
SPECIFICATIONS

Rated output	8W + 8W (4Ω, 8Ω,16Ω)
Input sensitivity	490mV (8Ω)
Input impedance	240kΩ
Frequency response	20Hz to 20kHz (+0.3,-1.5dB) 10Hz to 30kHz (+0.3,-3.0dB)
Total harmonic distortion	1% (1kHz, 8Ω, 1W)
S/N ratio (IHF-A)	105dB
Circuiting system	Driver: Parallel connection two stage amplification Output: Single configuration, cathod-bias circuit Whole: Non-feedback amplification
Vacuum tubes	5AR4(SOVTEK) x 2 6SN7GTB(TUNG-SOL) x 4 TA-300B(Takatsuki) x 2
Power voltage	230V~(50Hz) / 115V~(60Hz)
Power consumption	190W 190W (at no input)
External dimensions	460(W) x 237(H) x 340(D) mm rear side terminal of 36mm included in depth
Net weight	29.0kg (main unit)
Accessories	Power cable
Speaker terminal	Width of part a: 16mm or less
Supported Y-lug terminal dimension	Width of part b: 7mm or more



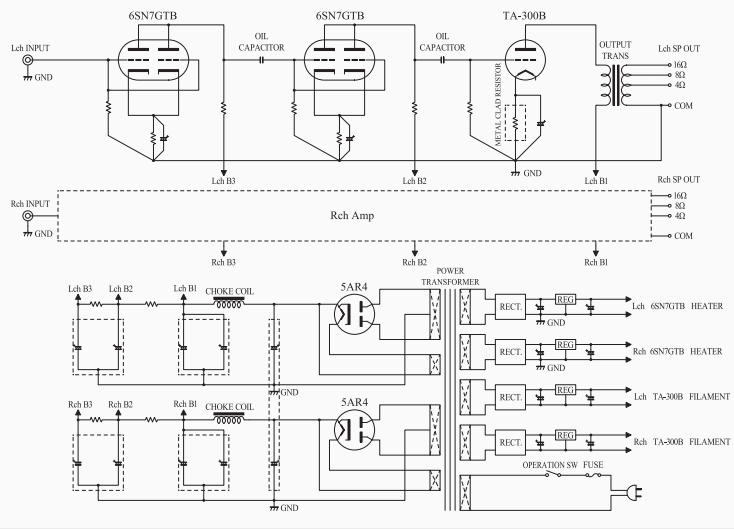
* Connection may not be performed depending on the shape of the Y-lug terminal.

*For safety, please keep the bonnet on in use.



Internal configuration

MQ-300 BLOCK DIAGRAM



* The described company names and product names are trademarks or registered trademarks of each company.
* Specifications and appearance are subject to change without notice. * The product listed in this catalog does not include line cables. Please purchase cables separately.

LUXMAN

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Safety Cautions

To ensure correct use of this product, read the "Owner's Manual" prior to use. Failure to follow all safeguards can result in fire, electric shock, or other accidents.