

# Legatus

## Reference Series Tube Input Amplifier

### **Tuneful Music Reproduction Concept**

Legatus main objective is the music reproduction in the most engaging way possible because we believe there is no compromise when it comes to Musicality.

After the circuit design of Legatus had been started, it took two years' research and development to perfect its circuitry and another year to make it possible to manufacture.

If you are looking an Amplifier that gives you the musical reproduction of tubes with high power that can drive any speakers then the Legatus is for you.

### **Principles of LEGATUS**

- Exhibiting best traits of tubes and solid state.
- Musically "Right"
- Neutral – Balanced
- Natural - Instruments Sound as it should be
- Combining efficiency and true dynamic power
- Creating sense of space like no other amplifier alike.

## **Technical Detail**

### Efficient Output Stage

Based on NcX500, latest technology from one of the best amplifier modules maker in the world Hypex, it is the further improvement for the ever so popular NCORE. Class D was never the same after it was introduced, further NCOREx has done it again to redefine what would mainstream audio enthusiast calls as musical amplifiers with ultra low distortion of -130dB. NcX's efficiency allows minimum heat and dissipate very fast, the music sounds Rock Solid. The lowest bass appears as clean notes instead of indistinct punches.

### Tube Front End Input

While NCOREx is great on it's own, we feel that it can be further enhanced with tube based buffer, we successfully blend the efficient, neutral and ultra low -130dB distortion of NcX with 5687 tubes for it's transparency, harmonics, euphonic and beautiful sounding voices and instruments.

### Zero Feedback Option

Conventional designs use feedback to compare the output signal to the input signal, Like a snake biting its tail, to cancel out the errors that have crept in during the amplification process, a compensation signal is applied at the input. This however, introduces time-domain errors and other artifacts. In contrast, Zero feedback circuitry delivers completely natural performance. Legatus exclusive zero-feedback option, are designed for intrinsically pure linearity, delivering performance that is coherent and natural. Note: There is a DIP feedback switch that can be turned off.

### Mono Block Design

Legatus comes in a pair of monoblock amplifiers. When it comes to signal crosstalk, The more isolated they are from one another, the better it is. By placing each channel in a separate chasis, there is complete separation of both signal and signal ground. Not to mention that the power supplies can run more silently and effortlessly.

### Independent Power Supply

There are two independent power supply Circuits in each Legatus Monoblock unit amplifier, one is for the Tube Front End Input Stage, the other is for the Output Stage. Furthermore, Individual fine tuning is possible. When the two power supplies feed only one stage, further fine tuning of each stage can be made. This elevates performance to the next level.

### High Precision Parts

When every parts is selected into extreme tolerances and used properly, these components have a far greater potential than the standard ones used by most HiFi companies. We have pushed the limits of what we consider high precision further than other's ever done in an amplifier before. All the capacitors and resistors on the

main board have been purchased in quantities of many thousands, individually pre-measured and selected into groups with an accuracy of between 0.1 and 0.001%, This makes each mono of Legatus Amplifier perform at its optimal peak.

#### Extreme R&D to the max

After we hand picked and selected parts with extreme low tolerance, finally each capacitor and resistor and all of their interactive combinations have been evaluated by ear, with music, on the Legatus circuit board, until we found the most musical combination. We take extreme R&D to create one of the best amplifier in the market, while the process was tedious and borderline pedantic, we feel that it was worth it and our customers should get the best of what we can bring to the market. This procedure alone took more than two year to complete.

#### Steel Enclosure

As part of our researched, we chose to use compartmentalized high grade steel chassis combined with special grade aluminum faceplate to control it's own resonance, electrical behavior and the final sound presentation of Legatus.

#### Fine Tuning

Legatus demands a lengthy fine tuning as it is our first amplifier. We put our main goal for it to simply let the music flow effortlessly. As usual, error and mistakes were made, some parts that were quite popular and the go to for most did not find it's place in Legatus. Instead we had to rework and check our notes to find the right parts for it. Each and every Legatus is individually fine-tuned and evaluated with music. Only when it performs as well as our reference it is packed and shipped to the customer. Legatus has repeatedly been described as a product that makes it more fun to listen to music, therefore, satisfy any demanding audiophiles/music lovers out there. We can think of no higher praise than that.

#### CALIBRATION and LISTENING TESTS

We have built an acoustic controlled Listening Rooms to test our products, where the average RT60 at 250msec. This is very useful and resourceful for us to calibrate our tuning further so that whenever our products enters client's home, they will get the performance too.

#### Story of Origin

We used to believe that one of the ways to get best musical performance from playback system is through a high sensitivity speakers and low watt amplification. Some of our products consists of those higher end of sensitivity speakers. With Legatus, we finally broke that barrier, where lower sensitivity speakers welcome the power of Legatus and able to perform as if partnered with our higher sensitivity speakers.

## **Sound of Legatus**

### **Musicality**

Legatus music reproduction in the most engaging way possible by preserving all the musical information, everything from being tuneful, musical contrast, rawness of the music, perfect timing and all harmonics as recorded.

### **Soundstage**

Legatus ability to render such vast sense of space and between instruments is way ahead in it's class. We believe the "feel" we get while listening is due to a competent and accurate spatial projection

### **Power**

It's peak power is 700w, while most people wouldn't need it, sometimes it can make a critical difference when the speaker permits. Therefore, plenty of power just to drive any High End Speakers you want.

### **Authority**

Legatus can drive almost any loudspeaker, but not just loud level. Its power rating may appear high, but it also plays music with impressive authority and power.

### **Transparency**

While Low distortion is not our main goals, it is mandatory for any competent high end audio system. We want you to immediately connect to the sound of instruments, ambient and the playfulness of the artist in front of you effortlessly, without further thoughts and to just let it flow in your room.

### **Balance**

In Legatus, we strike a balance of an old and new, slow and fast, hard and soft to present the music holistically.

### **Conclusion**

If you are looking an Amplifier that gives you the musical reproduction of tubes with high power that can drive any speakers then the Legatus is for you.

#### Technical specifications

Input: Balanced XLR and RCA:

Input Impedance: 100K $\Omega$ .

Signal Input Maximum Level: 8 VAC

Output Impedance: 4/8/16  $\Omega$ .

Power Rating: 700w at 2  $\Omega$  / 500w at 4  $\Omega$  / 100w at 8  $\Omega$

Frequency Response : 2 - 200,000 Hz.

Dimensions (WxHxD): 480x380x165 mm

Weight: 30.0 kg

Mains input voltage: 115 or 230 VAC

Mains fuses: Slow Blow T5A

Power consumption: 40 W - 800 W

#### Warning

This appliance must be earthed. Lethal high voltages inside the device, Please do not open! No user serviceable parts inside. Refer servicing to qualified personnel. To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture. Never use an appliance with a damaged power cord, as there is risk of lethal shock. Do not block the air ventilation on top, bottom and back panel of the device. Do not touch the Tube Rectifier while it's running hot. Clean using a damp cloth only.

The internal power cord is internally color marked as follows: Live=White, Neutral=Black, Ground=Green/yellow.

#### Contact Information

Alexandria Audio

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