

*Lyrta Audio*

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**GM70 SET**  
tube integrated amplifier

**Manual**

*Lyrta Audio*

## Guarantee

This amplifier is guaranteed against any defect in material and workmanship for a period of two years from the date of purchase. Tubes are guaranteed for thirty days.

Within this period, Lyrita Audio will repair the amplifier without charge, provided that failure was not due to misuse.

A separate guarantee card is not issued with this unit. The guarantee period begins on the day you take delivery.

Model No. \_\_\_\_\_

## Specifications

Input Tube	Russian 6N1P (1 nos)
Driver Tubes	Russian 6E5P (2 nos)
Output Tubes	Russian GM70 (2 nos)
Rectifier Tube	Russian 5C4S (1 nos)
Power Output	20 watts per channel into 8 ohms
Frequency Response	40 Hz to 20 kHz
Distortion (THD)	less than 1%
Inputs	CD, Tape, Tuner
Outputs	Speakers
Controls	Source, Volume
Mains Power	230 V, 50 Hz, 250 W
Size W x D x H	360 x 520 x 200 mm
Weight	22 kg

## Operation

Tube amplifiers need a load connected to their output. **Always connect the speakers before operating the amplifier.**

To power on:

- Flip the power switch UP to STANDBY. LED glows 'Red'.
- Wait 1 minute, for the tubes to heat up.
- Flip the power switch DOWN to OPERATE. LED glows "Green".
- Switch centre position is OFF.

When making or breaking any connections, always turn off the power to the amplifier first, so that no hum or transients are transferred to the speakers.

When sitting down to a listening session, it is a good idea to let the system warm up for a half-hour. This stabilizes the circuitry, and makes it sound better.

## Description

The **GM70 SET** is a medium power tube, stereo integrated amplifier, offering superb reproduction of sound.

This GM70 SET amplifier accepts three line level source inputs. The signal path is kept as simple and as short as possible, to preserve the integrity of the music signal.

The design is a single-ended triode tube amplifier, using the GM70 DHT power tube. The entire signal in each channel goes through a single output tube, making this class A operation. All wiring is point-to-point. The tube input stage is capacitor coupled to the driver stage, which in turn is coupled through an interstage transformer to the tube output stage. The output stage uses a custom designed audio output transformer. No global feedback is used.

Fixed bias is used for the output tubes. No user adjustment is required.

The power supply has an oversized transformer, to provide good regulation for the supply voltages. Solid state rectification is used for the output stage, and tube rectification is used for the input and driver stages. Each stage of the high voltage supply is independently filtered through chokes. Individual filament transformers are used for low noise operation. A DC filament supply is used for the output tubes.

The GM70 SET is housed in a naturally finished solid sheesham cabinet. The design elegantly showcases the beauty of the tubes.

## Connections

### Power

Mains supply connection is through a detachable power cable with an IEC-type connector. The mains power switch is mounted on the front panel of the amplifier.

### Signal

All input signal connections are made to RCA sockets on the back panel of the amplifier. These are user specified, for line level sources only.

### Speakers

The speaker output sockets accept banana jacks. The norm here is Red for signal and Black for ground. Maintain the colour code when connecting to the loudspeaker, so that the speakers operate in phase.

## Installation

The amplifier should be placed as close to the loudspeakers as possible. This will allow the connections to be made with short speaker cables. It is advisable to keep the additional impedance seen by the amplifier as low as possible. The best way to do this is to keep the speaker cables short.

Good ventilation should also be provided around the amplifier. The tubes generate a fair amount of heat, and natural ventilation is necessary to dissipate this heat to the surroundings. The amplifier chassis will get warm, but should still be comfortable to touch.

Always place the amplifier on a firm, smooth surface.

## Fuses

**! Warning : In operation, this amplifier has high voltages. Always switch off, and unplug the amplifier from the mains supply before working on it. Wait for 5 minutes for the high voltages to die down, before opening the amplifier!**

The amplifier is protected against overload by fuses at three points. The mains supply fuse is mounted on the rear panel and is easily accessed from the outside.

Inside the amplifier are two fuses on the high voltage supply. These are mounted on the inside panel above the power supply capacitors. To reach the internal fuses, remove the back top plate of the amplifier.

Mains supply fuse            2A, 250V (RQB 2000)

High Voltage supply fuse   500mA, 250V (RQB 500)  
   100mA, 250V (RQB 100)

On operation of the amplifier, if the fuses do blow, check all possible causes before replacing the fuses. If any doubt remains, contact Lyrita Audio for servicing.