

## NANOTUBE™

For decades, tubes have been the “sound makers” in guitar amps. However, every type of tube used up to now has had weaknesses, such as heat build-up, sensitive mechanics, short lifespans and – from an electronics viewpoint – their bulky size. While American technicians settled on semiconductors, their Russian counterparts re-examined and optimised the proven tube technology instead, to develop a completely reliable, shock-resistant tube to use for their space travel programme. These **sub-miniature vacuum tube** tubes were reduced in terms of size and weight, and consequently were more mechanically stable and noticeably more resistant to microphonics.

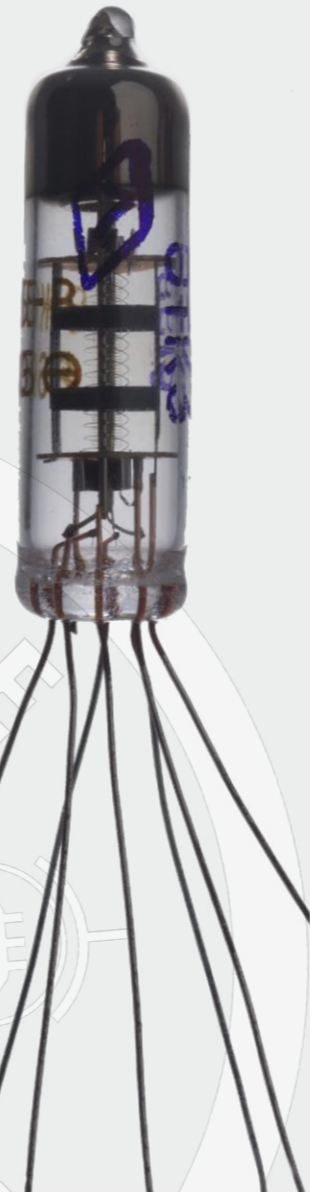
The **sub-miniature vacuum tube** is characterised by its lower noise levels at high input resistance and lower internal capacitance. This results in outstanding musical properties. It is clearly superior to conventional tubes in efficiency, energy consumption and reliability. Thanks to its mechanical strength, it can be constructed without a socket. It is firmly soldered in place, which eliminates any contact problems with the tube sockets. In comparison with classic tubes, **sub-miniature vacuum tubes** are almost “indestructible”, and require no maintenance. This tube is rock ‘n’ roll and is ideal for hard use in strongly vibrating loud speakers or stage floors. It is the most technically advanced tube technology on offer today. However, until now, the **sub-miniature vacuum tube** has never been used in guitar amps. When it came to market, the zeitgeist – the spirit of the age – was different, with huge 100-watt tube amps in fashion.

**BluGuitar®** relies on Nanotubes™. This means only using selected vacuum sub miniature tubes that fulfil our extremely high standards. The Nanotubes™ works in the power amp and gives **AMP1™ 100 Watts of character, punch** and the **assertiveness** you would normally only get from a large 100-watt full tube amp.

### The Nanotube lifespan:

The Nanotubes™ tube is a Russian creation, which – among other things – is used in the aerospace and aviation industries. The specification requires 97% of all Nanotubes™ tubes to have triple the lifespan of a standard ECC83 tube. In addition, **AMP1™** uses the Nanotubes™ at a slightly lower operating voltage, doubling the lifespan again.

This guarantees **NANOTUBE™** an extremely long lifespan, and for this reason is constructed without a socket. It should even outlive you!

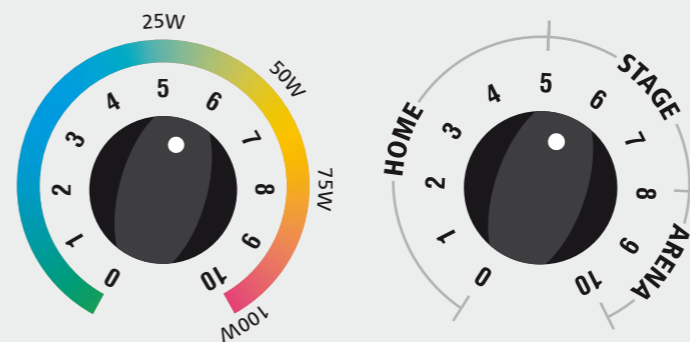


## MASTER 3

Controls the overall volume of the amp with 100 Watts of power. **AMP1™**'s power amp reacts just like a tube power amp. When it's pushed to the maximum, it will first go into saturation, and then into overdrive. Please make sure that the output power does not exceed the speaker's maximum power.

The output stage can be operated at full load without any problems. The fan will switch itself on automatically during periods of heavy usage to ensure that everything stays cool. The amp is also overload and short-circuit protected.

**Warning: High volume levels can cause hearing damage and can destroy speakers.**



MASTER: power range of the amp

## Connecting to a guitar amp cabinet

**AMP1™** provides separate outputs for the usual impedances of guitar cabs:

- 1 x 8 Ohm output 18
- 1 x 16 Ohm output 19

Only one speaker output must be used at a time!

Of course you can connect multiple speakers to one output simultaneously, even with different impedances.

Two 16-ohms cabinets:  
Put them in parallel, so you get a total load of 8 Ohms.  
Connect to **AMP1™** 8-Ohm output.

Two 8-ohms cabinets:  
Put them in serial, so you get a total load of 16 Ohms.  
Connect to **AMP1™** 16-Ohm output.

One 8-ohms and one 16-ohms cabinet: Put them in serial, so you get a total load of 24 Ohms. This setting you should connect to 16 Ohms speaker out. **AMP1™**'s poweramp will still produce about 80 Watts. With the extra volume from your speakers it will be louder.

The speaker impedance should not be lower than the output impedance on the amp, because **AMP1™**'s power amp would otherwise produce more power than desired. If used for prolonged periods over full load, the amp may switch itself off due to overheating.