

Valves & transistors. Is there really a difference?

The creation of appealing photographs lies with the person behind the camera – not the camera. The same is true for guitar amps. It's the designer, not so much the technology used to construct it... although the technology does afford opportunities for designers to be more creative. Session's designs have allowed solid state to work for electric guitars in a way that's generally thought to be impossible. But it's sad that its abilities are not too well known due to the misinformation that has been widely spread. So the bad feelings towards solid-state amps continues.

Yes, I admit that there are many bad sounding solid-state amplifiers which have been designed by people who do not fully understand the properties that a guitar amplifier must have. I can even point out successful solid-state amps from designers that have scant solid-state design education. And it's these amps that help to perpetuate the low status of solid-state amps. Tube amps do have a great sound, there's no doubting that. It's just their cost, weight and reliability that's a big problem... and for many players, dragging them up flights of stairs is just too much. This is where Session's solid-state amps come in to play strongly. They do have a tube amp tone and are just as loud watt for watt – thanks to their RetroTone™ power amps.

Unbeknown to many guitar amp creators and techs, the secret to the 'tube amp tone' lies with how their output transformers interact with the amplifier's guitar speaker(s). One well known British amplifier manufacturer knew this back in the 1970s... HH! They exploited this to produce the technically finest solid state guitar amps of the day! Endorsee, Wilko Johnson, certainly showed the world just how good solid state guitar amps can be for electric guitar, with the right design applied.

Just think about this for a moment. Transistor pedals sound great through a tube amp. 100% tube amps sound good (generally). Tube amps with solid-state rectifiers (Twin Reverb®, etc.) sound great too and have high clean headroom. Amps with solid-state preamps and tube power amps also sound great (Marshall® JCM800 & JCM900, Music Man®). Amplifiers with tube preamps and solid-state power amps don't sound so good... also those with 100% solid-state circuitry don't tend to either! Why? It should be clear! All the good sounding amps have tube power amps! And there lies the secret. All the other claims should be disregarded!

You see, tube amps drive their speakers by a method called 'constant current', thanks to the output transformer. It self-adjusts to keep the output power constant regardless of the speaker's varying impedance. So, you get that warm bottom end with a jangly top! Transistor amps have never had this tone, except the early ones equipped with an output transformer (more evidence) and those made by HH. So, the fabled 'tube tone' is created by the output transformer and NOT the tubes. But the tubes are the physical difference that players can see, so for that reason tubes have been given all the credit... wrongly!

Now, Session have circuitry it calls RetroTone™. This converts our solid-state amps into performing exactly like a tube amp... it provides equal power at all frequencies. So now, the tonal difference between tube and Session's SS amps no longer exists. And they sound just as loud as a tube amp too! Cold bland sounding solid-state amps are history... well, for Session's amps anyway!

Unfortunately, this information will be hard for many tube amp purists to swallow. However, when we get down to it technically, the answer to the solid-state tone problem was so simple to cure, it's a

tad embarrassing to talk about. In fact, we all could have been enjoying electric guitar being played through more reliable and lighter solid-state amps, certainly since the late 1960s, with a quality of tone at least equal to that of a tube powered amplifier! With far less cost too.

But hey! It's never too late. We can still ditch those tube amps and re-equip ourselves with a brilliant new solid state guitar amp. But will the gremlins inside our heads and peer pressure ever allow that? Hmmm, good question!

Magazine Review Quotes



Guitarist Magazine February 2018 issue

Their review of Session's all SS BluesBaby 45 stated "...it's easy to forget there are no valves inside." We took that to be another way of saying "...we struggled to hear any difference." Awarded a score of 8/10 - Image ©Guitarist Magazine

The Guitar Magazine was a little more gushing with their remarks in their review of March 2016.

- "The BluesBaby pops instantly into life - no valves to warm up - and it becomes clear we're dealing with a 'real' amp"
- "...it sounds rather brilliant."
- "...what happens if we turn it up? Is this where the non-valve pretender comes unstuck? Erm no!"
- "The breakup is sweet and totally natural"
- "It's totally addictive and totally tweed"
- "There's nothing like the sound of a cooking amp... and that's exactly what the BluesBaby delivers!"

Guitar & Bass Magazine review score: 9/10

<http://www.award-session.com/bluesbaby-complete.html>

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Guitar amp designer since 1967