

The Science and Voodoo Of Electric Guitars

With: Daniel Casado, Evan Skopp,
Jason Lollar, and Andy Marshall

April 6, April 27, May 25, 7:30pm

All meetings will be held at the Art Institute of Seattle

Ask anyone who knows anything about electric guitar amplification and they'll tell you that the whole thing is a mix of science and voodoo. The science answers the parts that we understand. The only answer for the rest is Voodoo. Join us in a three-part journey into the intricacies of guitar pickups and guitar amplifiers. Because of the depth of the subject, and our sincere desire to ensure that our presenters have sufficient time to get into sufficient detail for their portion of the subject, we have divided the meeting into three parts, to be held on three separate occasions.

On **April 6**, PNW Committee member and manufacturer's rep Daniel Casado will take us through a review of basic electronics. This presentation will explain the fundamental building blocks that all electronic devices are based on. You will learn about passive and active components, and how they are combined together to make power supplies, amplifiers, tone controls, and effects. No previous knowledge of math or electronics is required.

On **April 27**, Evan Skopp from the Seymour Duncan company, and Jason Lollar of Lollar Guitars will enhance our understanding of guitar pickups and their construction. Take a small magnet. Wind a coil of wire around it, and place it under the string. Connect to an amp, and Voila! music. *Oh that it was that simple.*

How does this thing work? What size magnet? How many turns of wire? How do I adjust it after I put it on my guitar? **WHAT WILL IT SOUND LIKE ???? As you will come to appreciate, it is just not that simple.**

These and many more questions will be answered as Evan and Jason take us on a tour of the world of guitar pickups. Jason will also be bringing a winding machine, and will perform a demonstration of the fine art of pickup winding, sometimes known as "how to wind many turns of wire that are finer than baby hair and many times more fragile around a form without breaking it and/or your sanity at the same time."

Finally, to close the circle, on **May 25**, Andy Marshall of THD Electronics, builder of the most boutique of the boutique guitar amps will shed light on the finer points of the guitar amplifier. What gets you off when you play your favorite amp? Are you looking for tone and articulation? What about dynamics, and touch sensitivity? Do you like that natural tube compression? Do you listen for how the notes bloom? Why do tube and transistor rectifiers sound different? What is class "A", and class "B" ? Come and join Andy as he explains the myriad of design tradeoffs that give an amp it's "Sound".

Join us at our next three meetings which will be held at the Art Institute of Seattle. Directions can be found at: <http://www.aes.org/sections/pnw/direct/ais.htm>

Our meetings are open to anyone interested in Audio. AES membership is NOT required for you to attend our meetings.