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AM & VU

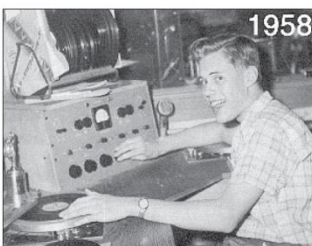
A Two-Fer Review

by Ron Erickson

Two reviews in one article, starting with a short back story. Many of us have experimented with 100 milliwatt AM transmitters which are legal without a license under FCC Rules Part 15. Heck, I could tell you names of at least a dozen radio pros that started with this little gem – The Knight Radio Broadcaster. Back in 1964, it sold for about \$12.00. (Photo at right.)



Today, hobby broadcasters generally agree that the one built by Keith Hamilton – the “Rangemaster 1000” – yields the best coverage while staying legal under the Part 15.219 rule. Most everyone who has used one of these has also purchased an Inovonics Model 222 in order to process the audio with Positive Peak Modulation. This makes the audio envelope louder without distortion, therefore it more efficiently rides on the tiny Part 15 AM carrier, hence better reception. With a good AM limiter to process the audio, your hobby radio signal can sound like a real AM station.



Back in 1958, Jim Wood caught the radio bug and we are so glad he did. He founded Inovonics and for 46 years has dedicated his electronic talents to making our business the best it can be. After stepping down from the day-to-day operations of

Inovonics, he has kept busy with his new venture, “The Schlockwood Laboratory,” described on his website as a “multidisciplinary research and development facility located in Brea, California.”

Jim has created a new product specifically for the Hobby Radio market; it’s a new AM Audio processor which leaves the older designs of his former 222 and 235 in the dust. Tympany roll please ... Ladies and Gentlemen, introducing the Schlockwood SW200.



Schlockwood SW200 – LPAM Audio Processor

Even though it was designed for Part 15 AM hobby operations, The SW200 is more than adequate for any full power AM station. It interfaces easily with balanced studio-level program feeds and unbalanced consumer/semi-pro signal levels. Subsonic and RF filters guard against erratic operation from out-of-band program frequency components. Slow, “gain-riding” Gated-AGC normalizes average levels from diverse program sources. It has a choice of the established NRSC program pre-emphasis characteristic or a continuously-variable family of peaking curves. This small AM processor also features Three bands of multi-band, frequency-discriminate compression and limiting. This really optimizes program density. Want more? Okay, how about



Interior view of the SW200.

variable low- and high-frequency program equalization. And now for the “icing on the cake,” so to speak – variable output asymmetry; up to +135% modulation for positive-going program peaks.

Personally I wished it would have been built with rack ears, but then, I like rack mounted gear. An after market rack shelf will take care of my only complaint.

My conclusion? Priced at less than \$500, this AM processor should be considered a valuable back up for corporate radio engineers to have on the shelf for an emergency situation. Not only because of the affordable price, but because it performs so darn well. Mr. Wood, you’ve done it again.

The next subject in our two-fer review is the Magna Scientific VU Meter series built in the USA by GaD Electronics. These add-on meters are most useful since they all feature selectable modes; Loudness, Loudness + Peak and Loudness + Peak Hold. The three versions are as follows, BLUE V-A is the strictly analog balanced audio version, BLUE V-D has AES/EBU balanced and un-balanced inputs.

The BLUE V-E has 3G / HDI HD / SD SDI Embedded Audio. While I love old school big Simpson VU’s, you can’t beat the accuracy afforded by these LED meters. It’s nice that they lined up the lights in a sweeping arc, harkening back to the swing of yesterday meters. An add-on, rack mounted meter like this could be oh so handy for many different applications.

Each version is packaged in a 1RU box and uses a common wall wart power supply. List pricing starts at \$630.00 for the analog box, \$655.00 for the AES/EBU model and \$940.00 for the V-E model.

A demonstration may be seen on You Tube; <https://www.youtube.com/watch?v=pwZm5HpLndc>

It’s difficult to show a 1RU product in a photo large enough to really see anything, so I’ll show half the BLUE V-A rack.



Currently, these products I’ve reviewed today are not available through any of the large broadcast equipment dealers, but drop me a line and I can tell you where they can be found.

Special thanks to the several people who have sent me favorable comments. I continue to be available by phone at (541) 460-0249 or at ronerickson@gmx.com

Ron Erickson, an enthusiastic supporter of low-power broadcasting, plans and builds radio stations and operates Erickson Broadcast Services (EBS), a broadcast equipment supply firm in the Pacific Northwest. Ron’s several decades in radio and TV include station ownership/management, on-air experience and teaching the broadcast arts. Ron is a regular contributor to *Radio Guide*.