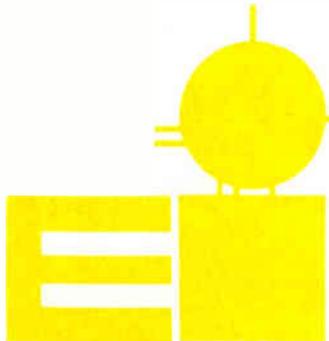


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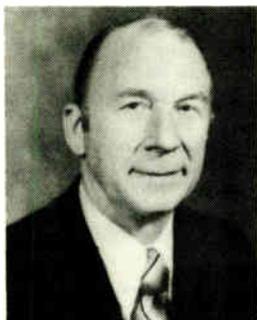
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AM STEREO - - NOW WHAT?

by Harold L. Kassens - A.D. Ring & Associates
 (Courtesy NRBA)

The FCC, in declining to select a single AM stereo system, has put a tremendous burden on the AM broadcaster. Unfortunately, many broadcasters are going to suffer financially because of wrong decisions made in the next few months. Four of the five proponents (Magnavox, Motorola, Kahn, and Harris) are already involved in promotional campaigns to talk station managers into signing up for their systems in the belief that the proponent who signs up the greatest number will be the winner.



Harold Kassens

The Commission's failure to act decisively has placed the final decision--not in the hands of the broadcaster or the public, but in the hands of the receiver manufacturers. The Japanese are having a "heyday", but no single receiver manufacturer in that country has decided which way to jump. There appears to have been discussions

among some Japanese manufacturers but no consensus has developed. In this country, Delco and Ford are in active discussions with some of the proponents, but they must be sure that the system they decide to use for auto radios is the same system the Japanese decide to use for portables, home receivers, and auto radios.

It might appear that Magnavox would have an inside track since it is a receiver manufacturer. But this is not necessarily the case. A decision to produce a large quantity of receivers for the Magnavox AM stereo system could have disastrous consequences if the other receiver manufacturers decided on another system. Also to be considered in this shooting match are the "chip" manufacturers who supply the integrated circuits to the receiver manufacturers. National Semi-conductor and Signetics in the U.S., as well as Sanyo and Toshiba in Japan, will play a part. And don't forget that Motorola manufactures its own integrated circuits!

From the above, it is obvious that the U.S. broadcasters and the public would have been better off if the Commission had pulled the name of one of the five systems out of a hat. (They all work--only some are better than others.) Meanwhile, we must all wait to see what combination of proponents, transmitter

(cont. on page 13)

THE WONDERFUL WIRELESS COLLECTION

Courtesy Minneapolis Tribune
 - Sunday Picture Section

By Peg Meier
 Staff Writer

Ever since he was 12 years old and built his first radio tube set—which, unfortunately, caught on fire from lightning and touched off his mother's curtains and had to be tossed out the window—Joseph Pavlek has been a nut on radios.



Now he has hundreds of antique radios and early communications parts. They take up the basement of his son's Minneapolis business and carry the name "Pavlek's Museum of Wonderful Wireless."

(cont. on page 12)

Letters to the Editor



THOSE WITH KNOW-HOW DO WELL

I am in total agreement with John-Shepler. The opportunities for broadcast technicians have never looked better. Those who want to work, and who have the know-how to do a good job for the broadcaster, can do very well.

The elimination of the first phone requirement was a logical step in the deregulation process. Its eventual demise was assured the day the first "license mill" opened its doors. For every "horror story" one hears regarding conditions found at a station with no first phone, I can recite one just as bad, or worse, where there WAS a first phone on the staff. If is simply not economically feasible for many stations to employ a full-time technician. This is the gap that the Field Service Engineer fills.

I am 100% in favor of the SBE efforts to upgrade the broadcast engineering profession via its certification program. This is a big step in the right direction.

Ralph E. Evans, P.E.
Consulting Engineer

WAYS TO TRIM THE BUDGET

If I were managing a very marginal radio station, constantly looking for ways to trim the budget, I'd seriously consider cancelling that non staff member Chief Operator contract.

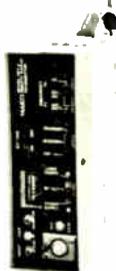
My reasoning would go something like this: My equipment is fairly new and my CO is getting a three or four hundred dollar check from me every month for just visiting the station once a week. I think I'll designate one of my full-time announcers as the new CO, give him a few more bucks a month and then take a chance that there will be no major break-downs. Even if something big does happen, my former CO would still help me out if I paid him a healthy hourly fee.

Actually, I might get away with this type of operation for a few years. Meanwhile, other stations are doing the same thing. So the competent radio engineers begin to
(cont. on page 11)

MARTI Gives You Radio ENG Power

PORTABLE BROADCAST REMOTE PICKUP TRANSMITTER

Model RPT-2 Series



FEATURES: Portable operation on internal rechargeable nickel-cadmium battery • Also contains AC power supply for AC operation and/or battery charging • Dual frequency operation (One crystal included) • Meter indicates battery condition, RF power, and compression • Antenna mounted directly on unit • Broadcast-quality Compressor/Limiter handles toughest remote pickup conditions • Microphone input (push-to-talk) and one Hi-Level input each with individual mixing gain controls • 2.5-watt continuous RF output • Direct FM modulator

PORTABLE/MOBILE BROADCAST REMOTE PICKUP TRANSMITTER

Model RPT-15

FEATURES: 15-watt continuous rated output for mobile (including aircraft) or portable operation • Built-in AC supply operates from detachable power cord • Small size permits easy installation in most vehicles • Broadcast-quality compressor-limiter operates over wide range of sound levels without distortion • Mixing gain controls for microphone and high level inputs • Built-in meter indicates RF power, audio compression and supply voltage • Dual frequency operation (one crystal included)

MOBILE RELAY RECEIVERS

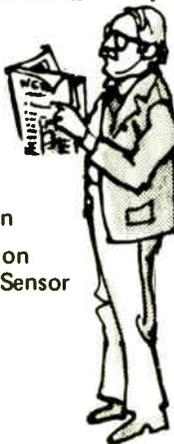
Models RR-30/150 • RR-50/450

Transforms a mobile RPU transmitter into an automatic relay station.

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COMMON POINT READINGS

- Page 1 Harold Kassen's on AM Stereo
- Page 1 The Wonderful Wireless Collection
- Page 5 Dale DeLaPointe on Tone Generators/Sensor
- Page 6 Q-Tips by John Shepler
- Page 12 Talkback
- Page 14 Persons Post Scripts



Editor's Notebook

June has not always been the best month for broadcasters. Sales are in that in-between season with vacations and all. The fall up-swing is just eight to ten weeks away, so many stations are getting ready. The service department at Electronic Industries is getting busier every day. With many stations having equipment...especially tape recorders brought back up to specs, give us a call...it could be well worth while... and a money saver too.

AM STEREO...right now seems to be dead in the water. With so many choices to go with...you can count on receiver manufacturers to go with the least expensive system.. and that could be as close as a month or up to a year away.

T'AIN'T SO...is the word we got regarding John Reiser and Joe McNulty, of the FCC, choosing the Harris AM Stereo System. (Broadcasting APR 5 Issue). Talked to John after the NAB and he said, he was not even aware of this "untruth" until he arrived in Dallas on April 6th.

JUNE COMMON POINT WINNER is WKVI Radio in Knox, Indiana. This gives them \$100.00 to spend as they see fit right here at Electronic Industries. Remember, to qualify..just return your acknowledgment card.

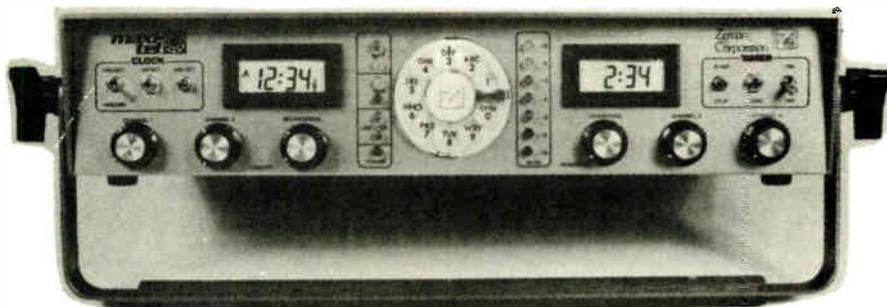
NEED EQUIPMENT..but a little short on cash?? Give us a call! Let's talk about a lease/purchase arrangement. We have been working with some stations, talking \$1,000 up to \$100,000. Leasing is a sure way to take the pressure off during a time when cash flow is a little tight. Call us.

A BIG THANKS..to Joe Pavek for providing the information on his fantastic Museum of Receivers. We were able to use just a few of the many wonderful pictures he provided. Just be sure the next time you are in the Twin Cities to stop for a visit.

QUESTION OF THE MONTH.. Last fall the NAB said it would support proposed rule making giving daytime stations: 1. Pre-Sunrise authority, 2. Post-Sunrise operations with reduced power, 3. Day timers on Mexican clears to operate beyond sunset provided protection requirements are met should the NAB "grab the handle" and go after this or is this another case where they continue to "sit on their hands"?

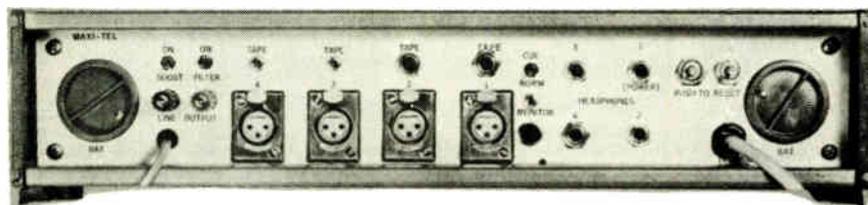
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- (3) AM - DA . . . FM and TV antennas
- (4) Television symposium including digital TV and VTR's
- (5) the opportunity to discuss engineering operational problems with many well known experts.

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DR. JOHN D. KRAUS, professor emeritus WOSU

JOHN A. CUNNINGHAM, Senior Technical Director, Cleveland Institute of Elect.

WALLACE JOHNSON, Director ABES . . . plus many more.

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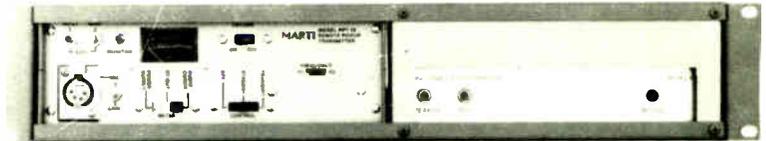
MODEL TSL-2
MODEL TSL-15

Telemetry Links



FEATURES

- ★ Choice of Transmitter Power- 2.5 watts or 15 watts **Continuous Duty.**
- ★ Transmitters are FCC type accepted.
- ★ Super-Selective Receiver with 90 db spurious rejection.
- ★ Test Meter built into both transmitter and receiver.
- ★ Receiver has adjustable squelch and carrier operated relay.
- ★ Built-in modulation control.
- ★ Internal AC Supply in transmitter and receiver with provision for external DC operation.
- ★ Optional Automatic Station Identifier.
- ★ Analog or Digital Telemetry or Voice Modulation in 20 Hz - 3000 Hz band.
- ★ Mic and Line Level Inputs with mixing controls.



TRANSMITTER



RECEIVER

The **Marti TSL-2 and TSL-15 Telemetry Links** provide reliable telemetry circuits for AM, FM and television stations. Expensive and unreliable FM Subcarrier and Telco lines can now be replaced with cost effective Marti TSL Systems. These links are simple to install, easy to operate and maintain. Marti has assembled complete equipment packages consisting of Transmitter, Receiver, Yagi Antennas, Cable, Identifier and optional items. The 2.5 watt transmitter is available for solar power or other limited power source applications. The 15 watt transmitter is recommended for use on medium to long paths having high signal attenuation.

SYSTEM SPECIFICATIONS

Frequency (Group P) 450.01, 450.02, 450.98, 450.99,
455.01, 455.02, 455.98, 455.99 MHz.
FCC 74.402 (a) (7)

Frequency Response 20Hz - 3000Hz \pm 1.5 DB

Distortion 2% THD

Signal to Noise Ratio 40 DB

RECEIVER

Sensitivity 0.8 uv. for 20 DB quieting (1.5 KHz Deviation) 50 ohm impedance

Output Level -4 DBM, 600 ohms balanced

Squelch Adjustable signal operated squelch provides audio muting and auxiliary contacts available at rear chassis connector

Selectivity Narrow band filter for 10F3 emission

Spurious Response -90 DB spurious rejection

Metering Built-in meter indicates relative received signal level, output level, power supply

Power Requirements 110-125 volts AC 50 - 60Hz, 30 watts 11.5 - 14 V. DC, (Neg Gnd) 0.2 Amps

Dimensions 19" Wide, 3", "High, 12" Deep

Weight 16 lbs

TRANSMITTER

Emission Type 10F3

Comm. Bandwidth 10KHz

Maximum Rated Power Output 2.5 watts (FCC Type RPT2-450P)

Maximum Rated Power Output 15 watts (FCC Type RPT15-450P)

Frequency Stability \pm 0.00025%

Spurious Emission Meets FCC Rules

Audio Inputs Push-to-Talk Mic Input, Line Level Input Jack and Connector Pin, individual mixing gain controls 150 to 600 ohms

Metering Panel meter indicates RF output, modulation, and supply voltage

Modulation Control Built-in Compressor-Limiter

Power Requirements 110-125 V AC 50 - 60Hz, 11-13.8 V DC Neg Gnd RPT2-450 draws 0.75 Amps DC RPT15-450 draws 2.6 Amps DC

Dimensions 19" Wide, 3", "High, 12", " Deep

Weight 24 lbs

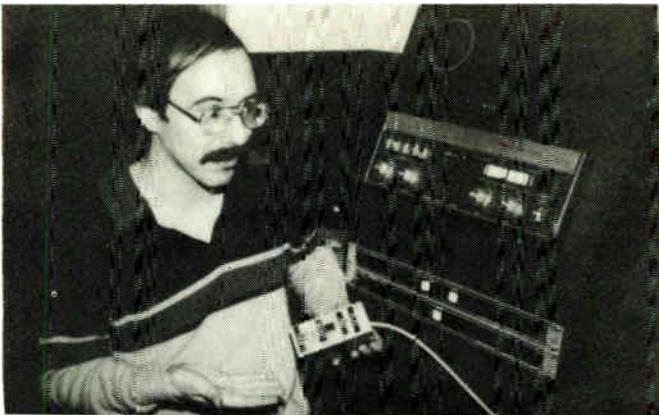
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TONE GENERATOR TONE SENSOR INTERFACE

by Dale DeLaPointe

Here is the dope on interfacing the 2501 tone sensor with the 2501G tone generator. The Schematic diagram here shows the interfacing of both units with Revoxes as the tape source.

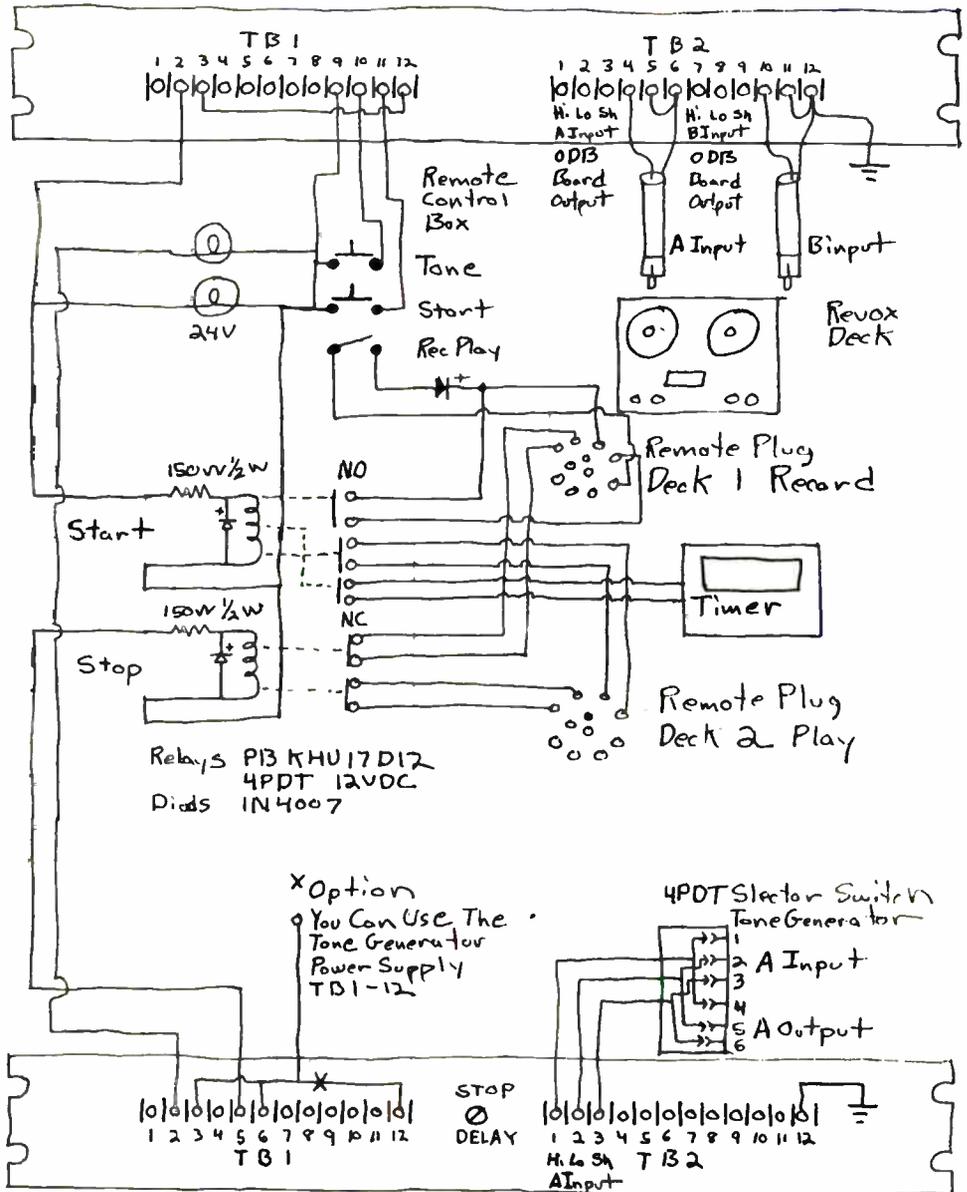
In my studio, we use three Revoxes which are all tied into my stop-start relays. One could also tie a cart machine to this depending on user needs. This is how the system works.:

When you press start on my remote control box, the start light will stay on for one second which indicates the length of the one second mute circuit. This eliminates start up noise on your tape. Revox Two will go in play mode, Revox One will go in record mode, with play record switch in record. Now at the end of the song, press the tone switch, the tone light will light as soon as the tone sensor detects the tone. Upon release of the tone button, the tone will quit, the light will go out, the tone sensor will time out, say two seconds, and stop Revox One and Revox Two. The delay time is adjustable to your own needs. The tone generators 25HZ output can be adjusted to the -7db to your recorder setting. The tone Sensor Selector switch is used so you can monitor the tone generators output which is prefiltered and has the 25Hz stop tone, or the unfiltered control board output. The latter is used to review the tape just made to see if the tone length is proper.

The operation is quite simple so any of the announcing staff can make tapes that turn out consistant. All the music on record is transferred to tape as soon as it comes in. This eliminates cue burn and scratches. The master tape is easier to record from and edit from. This tape goes on Revox Two, your source.

That's it, making your own automated tapes can be easy and efficient way to control your music programming.

Tone Generator



Tone Sensor

ENGINEER DALE DELA POINTE



Q TIPS

by John Q. Shepler
Technical Consultant

"How can I do a telephone interview on the air?" Well, like skinning a cat, there are really a number of ways to connect the phone system to your control board.

The old quick and dirty solution is to get your audio from a "recording connector" that you buy or rent. The connector blocks the DC on the phone lines but allows both ends of the audio to feed a board or recorder. This is OK for recording feeds from Farm Bureaus, etc. but for two-way conversations the results are pretty ugly. The announcer usually has to tuck the telephone under his chin while trying to talk into the studio microphone and run levels at the same time. Since the difference between the two conversation levels is often 10 to 20 db, this can be quite a chore. Even worse, the carbon granular microphone in the handset generates such horrible distortion that you can hardly understand the announcer's voice unless he completely pots-down the channel when talking.

There are all sorts of ways to improve on the basic studio telephone with schemes like hybrid transformers, balanced mixing, and so on. However, for my money the

really elegant solution is the ubiquitous "SPEAKER PHONE".

I was introduced to this method at my first announcing job on the old WFRL/WELL-FM. It was a call-in show named PARTY LINE. The hosts, Dick Carroll (now at WDMP) and Ruth Mahoney (now at WACI) simply arranged to have the phone company install one of those neat "executive helpers" in the studio. The caller's voice was picked up by an extra microphone placed in front of the phone's speaker.

Does this sound obvious? I never thought it was a big deal until I noticed how many stations are fighting with homebrew lashups of coils, transformers, amplifiers, and other assorted nonsense hanging on the phone line.

Good grief, save yourself some headaches and put a "hands-free" unit in the studio. Unless you have some exotic requirements for feeding contests down the line, the hookup is pretty easy. If you own your own phones, you can go Ruth and Dick one better by wiring the speaker output to feed directly into your console. Off-air interviews are done by switching your microphone, telephone, and recorder onto the audition channel.

While you are at it, put a second unit in the production studio and your phone interview worries are over.

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Electronic Rain Gauge*

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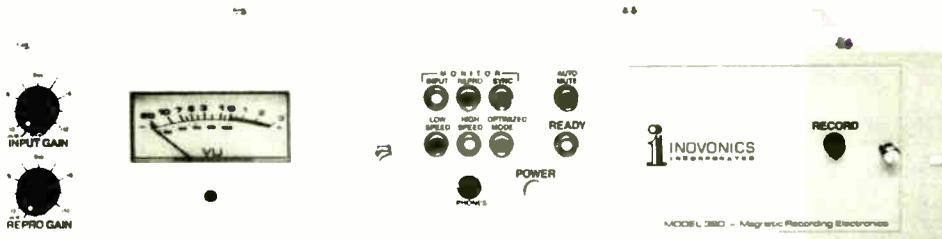
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Common Point/June 1982
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MODEL 380 MAGNETIC RECORDING ELECTRONICS



The Model 380 represents Inovonics' fourth generation of self-contained Magnetic Recording electronics for professional audio recording applications. The 380 is suitable either for new OEM installations or for substantially improving the performance of existing magnetic tape and film recording equipment. Features include:

- Equalization, level and bias adjustments for routine, two-speed operation, and a third, "optimized" operating mode with separate adjustments to accommodate a different tape stock, operating level, track format, EQ characteristic, etc.
- "Pickup" (insert) Record Capability with adjustable delay, and "Sync" Reproduce with automatic monitor transfer.

- Provision for remote selection of monitor function, and defeatable "Auto Mute" to attenuate playback during high speed search.
- Adjustable circuitry to reduce the effects of tape compression and phase distortions.
- Increased erase, bias and signal headroom for high coercivity tapes.
- Switchable "VU" or 10ms, quasi-peak program monitoring.
- Two or more units easily interconnected for stereo or multi-track installations.

MODEL 370 TAPE RECORDER ELECTRONICS



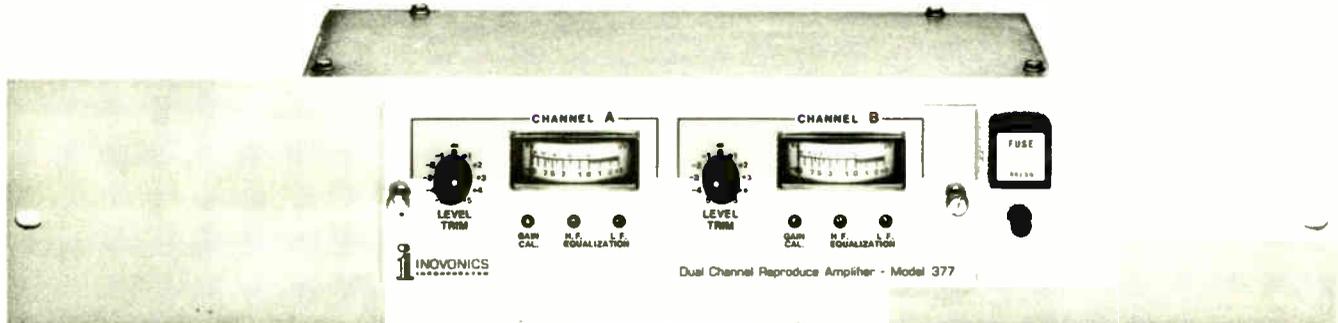
The Inovonics 370 is a replacement electronics package for updating older professional recorders. It is a basic, two-speed, "no frills" unit with excellent performance, high reliability and of rugged construction to meet the demands of continuous use in broadcast, studio and educational applications.

The 370 accommodates virtually any combination of original and replacement heads of either high or low impedance. It is pin-compatible with Ampex 300-, 350- and 440-series machines and easily

adapted to most other professional recorders. Features include:

- All controls are "up front" for easy setup; calibration adjustments are stable, multi-turn pots.
- Entire electronics assembly unplugs from the front for ease in servicing; all components are standard, "off-the-shelf" available parts.
- Two units plug together for stereo operation.

MODEL 377 DUAL CHANNEL REPRODUCE AMPLIFIER

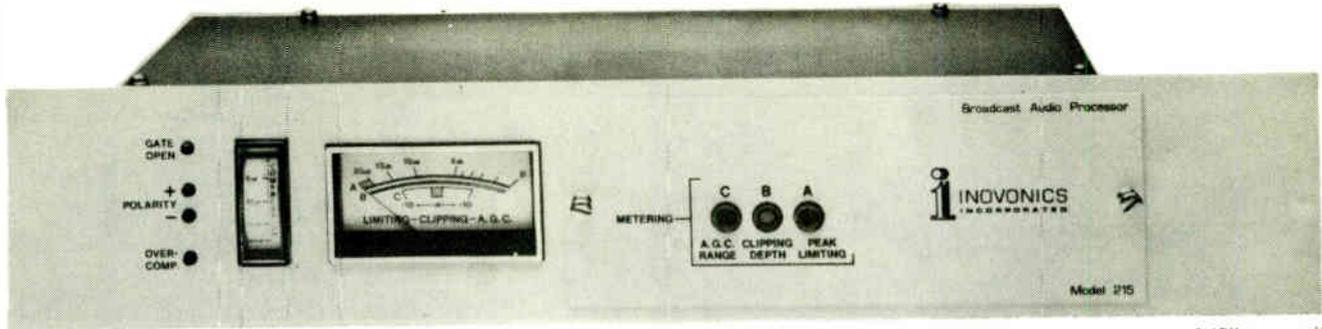


The Inovonics 377 is a self-contained, dual-channel magnetic tape reproduce amplifier. Designed primarily for broadcast automation systems, the 377 also finds use in background music installations, tape duplicator "QC" checkers and other basic, single-speed applications.

- Accommodates virtually any tape reproduce head. -01 option can be strapped for either Hi-Z or Lo-Z head windings. Pin-compatible with Ampex and Schafer equipment.
- Low noise design utilizes an optimum combination of IC and discrete circuitry for lowest residual electronics noise.

- Wide equalization adjustment range for both NAB and IEC recording characteristics, 1 $\frac{1}{8}$ to 30ips.
- Multi-turn trim adjustments and fully regulated power supply assure stability of settings and drift-free operation.
- Entire electronics amplifier subassembly unplugs from the front panel for ease of maintenance.

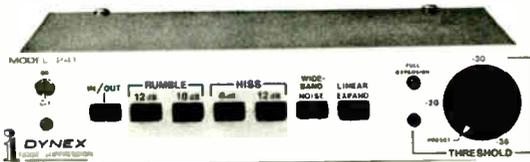
MODEL 215 BROADCAST AUDIO PROCESSOR



The Inovonics 215 offers an "as needed" approach to audio processing for AM and FM broadcasting. Processing options are provided in the form of plug-in subassemblies to perform gain-riding A.G.C., average level compression and peak control functions. The

various options are available singly or in pairs to fulfill a specific processing requirement or to complement existing equipment. "Fully-loaded," the 215 stands alone as a complete broadcast audio processing chain.

MODEL 241 "DYNEX" NOISE SUPPRESSION



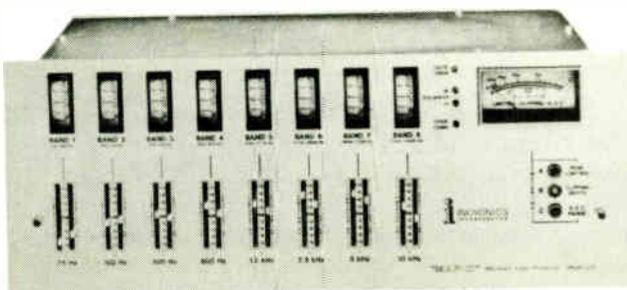
A program-controlled filter/expander, Model 241 DYNEX is an effective tool for suppression of residual background noise in audio reproduction systems, TV film chains, etc. Model 241 offers a choice of operating modes for selective suppression of low-frequency, high-frequency, or wideband noise, or restoration of program dynamics by linear expansion.

MODEL 201 AVERAGE AND PEAK RESPONDING LIMITER



Inovonics' Model 201 is an unusually smooth dual-function audio limiter designed for studio recording, mastering, and broadcast production work. Serving as both a fast peak limiter and independent average-responding limiter, Model 201 restricts program peaks to a preset ceiling value while maintaining the average program level within desired limits. Features include variable dynamic range compression, exclusive open-loop gain reduction and ripple-canceling circuitry, and visual indication of gain reduction.

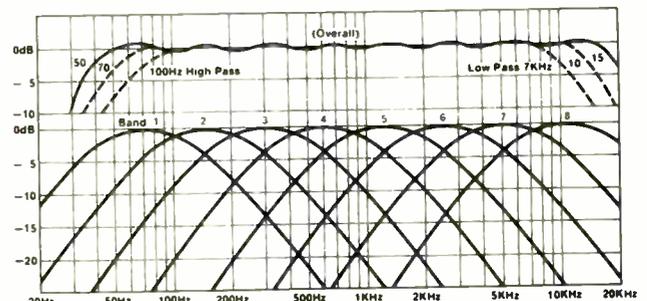
MODEL 231 "MAP-II" MULTIBAND AUDIO PROCESSOR



The Inovonics 231 is a user-oriented discriminate processor of advanced design to assure optimum modulation in AM broadcast applications.

The MAP-II includes a slow, "gain-riding", gated A.G.C. to erase input program level variation. The eight bandpass compressors offer control over the input and the output signal in each, to afford ultimate "dynamic equalization" of the program material.

All component parts are readily available, "off the shelf", and circuit assemblies are accessible from the front of the unit for ease in servicing.



Overall Frequency Response and Bandpass Compressor Characteristics

The unique Peak Controller incorporates a true, fast peak limiter with a clipper in a feedback arrangement to give total control over clipping depth and asymmetry. Maximum positive modulation is assured by an inaudible phase "rotation" circuit, rather than the usual phase switching schemes.

A built-in Pink Noise generator aids in system setup.

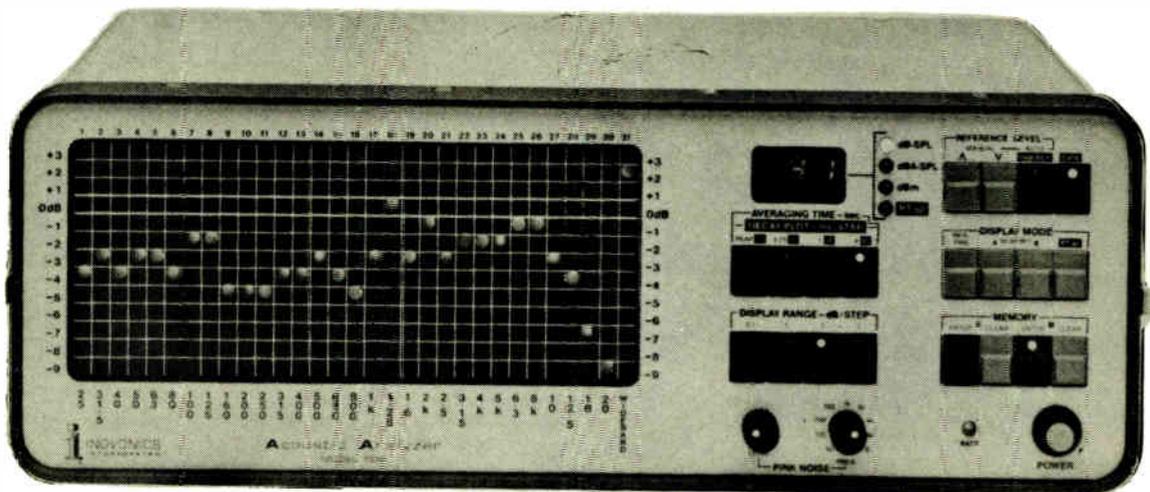
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MODEL 500 ACOUSTIC ANALYZER



Here's everything you need for one-third-octave, sound-level and reverberation-time analysis. Inovonics' Model 500 Acoustic Analyzer. It's one very sophisticated but easy-to-use instrument. Lightweight but rugged, Model 500 goes wherever you go. From the freeway interchange to the auditorium, concert hall, and laboratory.

500 Features:

- Large, easy-to-read 13 × 31 LED matrix displays both real-time and reverberation decay plots.
- Filter rectifier time constants can be selected for peak or log-averaging readings in the real-time mode. Decay plot scanning rate may be set for integrating periods of 7.5, 15, 30, or 60 milliseconds-per-step.
- Digital readout indicates Reference Level in dB-SPL or dBA-SPL from 40 to 139, and in dBm from -60 to +39 for line input signals. RT₆₀ measurements to 10 seconds are displayed with 10 ms resolution.
- Analyzer sensitivity is manually programmable up and down in 1 dB steps.
- "Auto Level" function automatically programs analyzer sensitivity based on wideband level information.
- Dual, independent memories store or accumulate spectrum or decay plots.
- A rear-panel connector provides an external oscilloscope output and trigger for auxiliary bar-graph display. The digital I/O interface connector readies the Inovonics 500 for peripherals such as hard-copy printers or three-dimensional displays.
- An internal generator supplies wideband pink noise for real-time analysis or noise in octave bands for RT₆₀ measurements.
- The analyzer operates from either the AC line or its own internally charged battery.

Analyzer Sensitivity: (for 0dB Reference Level) 40 to 139 dB-SPL or dBA-SPL, microphone; -60 to +39 dBm, line.

Display Range/Accuracy: 0.5, 1 or 2 dB/step with relative Reference Level and indicated display error less than ±0.25dB; 3dB/step with less than ±0.5dB error.

Filter Characteristics: 2 pole-pair filters on ISO one-third-octave centers, 25Hz to 20kHz. Response exceeds ANSI S1.11/Class II/1971 standard. Relative filter accuracy ±0.5dB.

Rectifier Characteristics: Peak or 0.25, 1 or 4 second log-averaging response.

Reverberation Analysis: RT₆₀ readout internally extrapolated from 30 or 15 dB initial decay. Measurements to 9.99 seconds with 10 ms resolution; Accuracy ±3%, ±2 counts for decays greater than 0.1 second.

Microphone Input: 200 ohms, balanced with XLR connector.

Line Input: 100K-ohms, unbalanced; calibrated to ±0.5 dB.

Pink Noise Source: Digitally-synthesized, pseudo-random; ±0.5 dB spectral accuracy. Selectable wideband or octave-band output with 2-pole filters on ISO centers, 63Hz to 8kHz. Manually-gated, unbalanced output is variable to +5 dBm.

External Oscilloscope Output: BNC connectors for 'scope vertical and sweep trigger; external 'scope display has 7.5, 15, 30 or 45 dB dynamic range.

Interface Connector: Permits external control of memory storage, pink noise gating and decay plot scan; provides display data output and internal clocking signals for interfacing with digital peripherals.

Power Requirement: 115/230 VAC, ±10%; 50/60 Hz; 25 watts.

Internal Battery: 3-hour typical operating life; recharges in 8 hours.

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WAYS TO TRIM THE BUDGET
(cont. from page 2)

drift into other technical fields and younger folks, who once looked at broadcast engineering as an interesting, rewarding career, decide they should pursue other jobs in electronics.

So the industry would begin to feel the affects of the shortage of broadcast engineers; perhaps not immediately, but within five or six years. At that point, stations might be forced to leave the air because of technical problems their designated Chief Operator can't handle. Instead of losing two hours of time, stations may have to stay off the air for two or three days while management calls for a factory representative or an out-of-town engineer to take care of what might actually be a very minor problem, which should have been quickly identified by a local engineer familiar with the equipment.

Along with this considerable "down time," stations will be receiving more complaints about distortion and the public will forward more notices to the FCC. This federal agency will take a fresh look at the industry and try to find a solution. Someone might suggest: Let's take steps to see that the Designated Operator is qualified. We can't take every operator into our laboratory and check his ability to diagnose transmitter problems, so we'll design a comprehensive written test. If he passes it, we'll certify him as a First Class Radio-telephone engineer. But, what about those bright people who can breeze right through a test, but don't know the difference between a diode and microbe? Inevitably, this will happen, but many of these young men and women will continue to study and work with radio equipment and eventually become competent engineers, especially when they discover their services are in demand and stations are willing to provide adequate financial compensation.

Don Orwin, Advisor
Communications Technology
Somerset Community College
University of Kentucky

Editor's Note: Mr. Orwin said it -- let me repeat it -- "Let's take steps to see that the Designated Operator is qualified." The question is -- who decides?

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TALKBACK

TENN...Amen to editors note about the fine station mentioned on page 6 of April C.P. ...I know of three stations my area run almost as good...

FLORIDA...Agree with engineer from Illinois...let first phone R.I.P. whether they are "certified" or not not nearly as critical an issue as "can he/she perform the task at hand. If not...train'em or terminate'em...and try again.

MICH...AM stereo..we wanted a choice..Now we have five and a lot of problems to come. Us little guys will have to wait for the biggies to set the stage.

OHIO...Agre with Minn. Talkback (Apr. Issue)...SBE is just out for \$... I'm not impressed...Leave qualification to mkt.

MINN...Class 1A and 1B clears have out lived their usefulness... Skywave should not be considered when plotting interference factors. Clears should be protected to same extent as any other AM station. All radio is local today.

NORTH DAKOTA...In long run only good technically run stations will make it...local TV is one in trouble.

KENTUCKY...Hope NAB and SBE keep out of first phone elimination. FCC has eliminated requirement for first...We don't need others to seek monetary gain.

MONTANA...I don't lament loss of first ticket...performance counts... not test scores.

WISCONSIN...Hope Harris AM Stereo System wins race.

NORTH CAROLINA...Why should the government regulate everything for it to carry any weight? Other professionals have their own regulatory guide lines...Why not broadcast engineers? It is going to take owners and managers cooperation to accomplish this.

MISS...Each issue needs a xmitter article like Dave Forsman..(Both AM and FM) should include older models also...get off the SBE thing.

NEBRASKA...Always like to see circuits I can use...i.e.:INTERFACING TELEPHONE WITH BOARD... TAPE RECORDER, ETC. ...

WA...Yes! The logo very tacky... you need a new one! (Ed...Huh??)

INDIANA...Enjoyed article on WOSU...Keep up the good work.

OHIO...Agree 100% with anonymous EDITORS NOTE on FCC elimination of 1st as long as station is making money. Many G.M.'s don't care about technical aspect of station. *****

Common Point/June 1982
Page 12

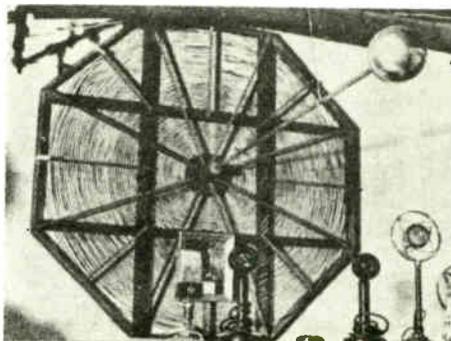
THE WONDERFUL WIRELESS COLLECTION (cont. from page 1)

Mostly the place is frequented by other collectors, but Pavék is working toward opening it for the public, particularly school children who can't imagine life without modern radio and television.

Pavék, 70, and semi-retired from his automobile paint company, spends six to eight hours a day at the museum.

"A labor of love is what it is," he said. "I can spend all day just monkeying around with one of these old sets and I'm the happiest guy on earth."

He has one worry: "I've got to start thinking about disposing of it. I can't take it with me. I wouldn't like to break it up and dispose of it in my estate. Places like the historical society might like a piece or two, but the value is the variety of items. I'd like to give it to someone if I could get the assurance that it will be maintained for posterity in the public view."

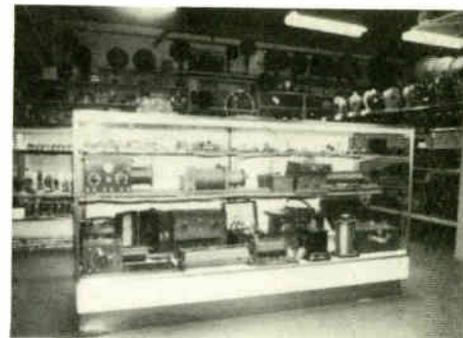


Model of Tesla-designed wireless energy transmitter, background. Old microphones, foreground.

The volume of stuff is amazing. If you let him, Pavék will show you through the museum set by set, radio tube by radio tube. He loves to point out how one piece of equipment differs from its predecessor. That can take hours. He points out and talks about the "mercury-vapor rectifier tubes" and "one of the first Zworykin television camera tubes called the iconoscope" and "this one-kilowatt rotary spark-gap transmitter from about 1910."

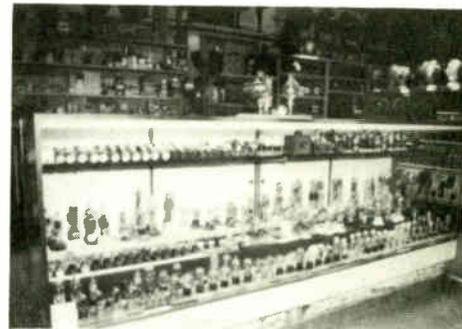
He starting collecting decades ago, when he traveled Wisconsin, North Dakota, South Dakota, Iowa and Minnesota for his automobile-parts business. He spent evenings scrounging around antique stores and hardware stores and funeral parlors for radios. (Mortuaries often sold furniture on the side, and were early dealers of radios.) He also found old telegraph operators who were likely to be ham operators and have some radios laying around.

When he started collecting, the prices were much more reasonable, he said. Now the antique bug has hit his hobby hard.



Crystal Set Show Case

"Twenty years ago people would say, 'Take it; it's junk.' Just in the last five years, people got dollar signs in front of their eyes, even if the stuff is junk! It was about then that the Wall Street Journal ran an article about an Atwater Kent bread-board (radio) set. It said someone paid \$8 for it and then it was worth \$800. That one article almost did me in. I got all sorts of letters and calls saying, 'I've got this old 1938 electric radio set.' 'What do you want for it?' I'd ask, and the answer would be \$300. Well, it was worth maybe \$20 or \$25."



Tube Show Case



(cont. on page 15)

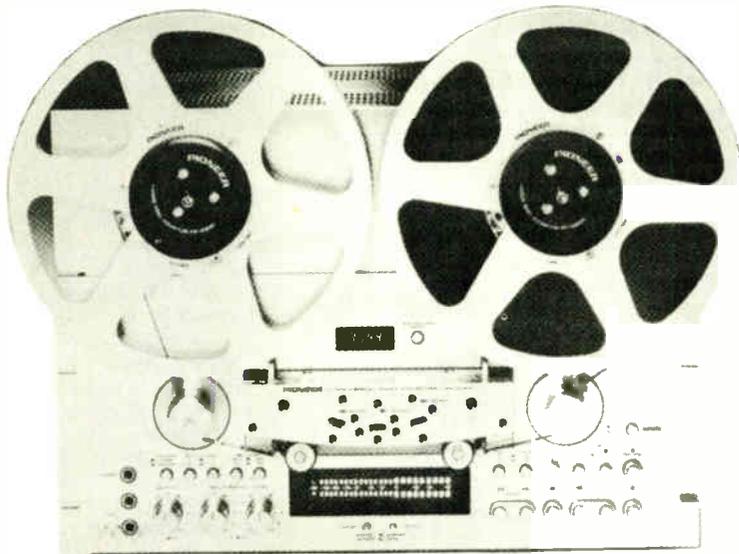
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AM STEREO
(cont. from page 1)

manufacturers, integrated circuit manufacturers, and receiver manufacturers can be assembled to go forward with one system (without violating anti-trust laws).

Until a consensus appears, broadcasters are between a rock and a hard place. If you sign up for an exciter unit and monitor for one of the systems now, you can be reasonably sure you are near the top of the list and will get your equipment soon after the production lines start rolling. But if it is the wrong system, it may be difficult to modify the unit for the "right" system. This is a point you might wish to get a commitment on, before you sign an order. If you wait until you are sure of the "right" system, you will probably have a long wait for the exciter and monitor. To help you "hedge" your bet, HARRIS will give you a discount of nearly \$3,000, if you had signed up by April 7th, 1982. MOTOROLA has an arrangement where you can lease the equipment (for \$4,500) for one year which is then applied toward the purchase price if you decide to buy. KAHN has indicated a full purchase price of \$12,000 for exciter and monitor while MAGNAVOX has not announced firm prices. BELAR is not attempting any sales or production at this time.

The only sure bet we can give you is that AM stereo will arrive (probably in a year), and you should get all your audio equipment ready for two channels if you have not already done so. Then make sure your antenna system is capable of handling the "broadband" requirements of AM stereo.

Don't worry about replacing your present exciter and monitor with the new AM stereo units. The conversion will be simple to do for standard transmitters. There is one note of caution: THE FCC REQUIRES TYPE-ACCEPTANCE OF THE STEREO EXCITER WITH YOUR TYPE OF TRANSMITTER. If the transmitter or stereo manufacturer does not make the measurements for you, or if your particular combination of exciter and transmitter has not been done by someone before you, then you will have to do it yourself! Perhaps you can make type-acceptance a condition of purchase.

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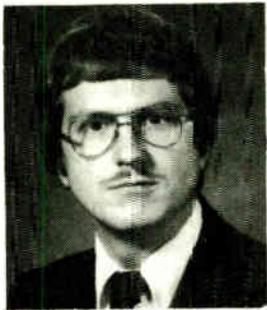
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PERSONS' POST SCRIPTS



by Mark
Persons

The annual National Association of Broadcasters' Convention in Dallas drew over 25,000 people. There wasn't a hotel room to be had within a \$10 cab ride of the Convention Center.

AM stereo was probably the biggest topic of conversation among radio broadcasters. All stereo proponents had displays with demonstrations of AM stereo sound in one form or another. One even had a car on the display floor that you could sit in and listen to stereo. Many dozens of stations have signed up with the many different proponents to install AM stereo as soon as it is available sometime this summer.

The FCC will soon be announcing rules for AM stereo. It appears almost any system will be allowed providing mono compatibility is assured. This means that AM stereo

will not be limited to the five previously proposed systems. New systems can be created and used.

The FCC's AM stereo "Market Place" approach, in this author's opinion, is very wrong and will hurt AM's reputation. The FCC is saying, in effect, that the consumer will study the technical specifications and decide which AM stereo receiving system he will buy. There are so many variables and specifications are so difficult to compare, that I doubt if even one-tenth of one percent of the public could make a rational choice on the subject. Where does that leave the other 99.9%? My interpretation of AM stereo is where the FCC decides on one system, the broadcaster installs it, and the consumer decides if he wants to spend extra money to hear it.

The AM stereo hassle may be resolved soon for everyone by the RECEIVER MANUFACTURERS. The decision is probably being made this week in Tokyo. After all, the receiver manufacturers stand to lose millions if they make radios that are not compatible with transmitting facilities. A single AM stereo system should have been chosen long ago and one system MUST be chosen soon.

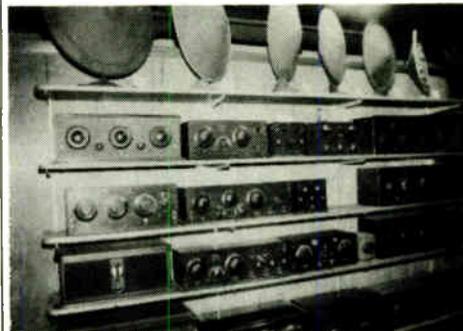
The AM stereo scenario will unfold with clever twists during this coming year. It's going to be interesting to observe. I only hope that ONE system has been chosen by this time next year.

WIRELESS

(cont. from page 12)

Old radios infiltrate almost every part of his life. His reading — old radio magazines. His clubs — "Old Old Timers Club," a group of ham operators licensed 40 or more years; "Quarter Century Wireless Association;" "Society of Wireless Pioneers;" "Radio Club of America." His book collection — "The Radio Boys," 1920s adventure stories for boys. His stamp collection — U.S. and foreign stamps picturing communications advances. His travel — to meetings about antique radios.

"I've got to admit, this thing has grown and grown," he said, somewhat sheepishly.



Some people raise an eyebrow and call him a fanatic, he said, but his friends and his wife, Eleanor, approve. "She's glad I don't have my collection at home, the way some of the fellows do. They get crowded out of their houses. And Eleanor gets a kick out of going to the conventions and meeting the guys.

"You know, a lot of these people interested in old radios are in their 80s and still going strong. And they're knowledgeable. I'm no expert like these people are. I appreciate having the chance to meet these fine fellows and shake their hands and say hello."

One of his radio buddies flew to Minneapolis from Denver one Sunday to trade radios. Pavek gave him an Atwater Kent from 1922 and got a Federal model #61 from 1924.

All the buying and trading has given Pavek one of the bigger collections in the country, he said. "I'm not ashamed of it at all. Some have rarer sets and some have more, but this is a real good representation. I've got a good collection of old radio tubes dating back to 1908, and some experimental tubes. And a collection of very early crystal receiving sets. And an assortment of early broadcast sets bought by the public. And . . ."

Pavek's museum is at 2632 Nicollet Av. He said he'll be happy to show his place to anyone who makes an appointment. ■

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