The Scott News

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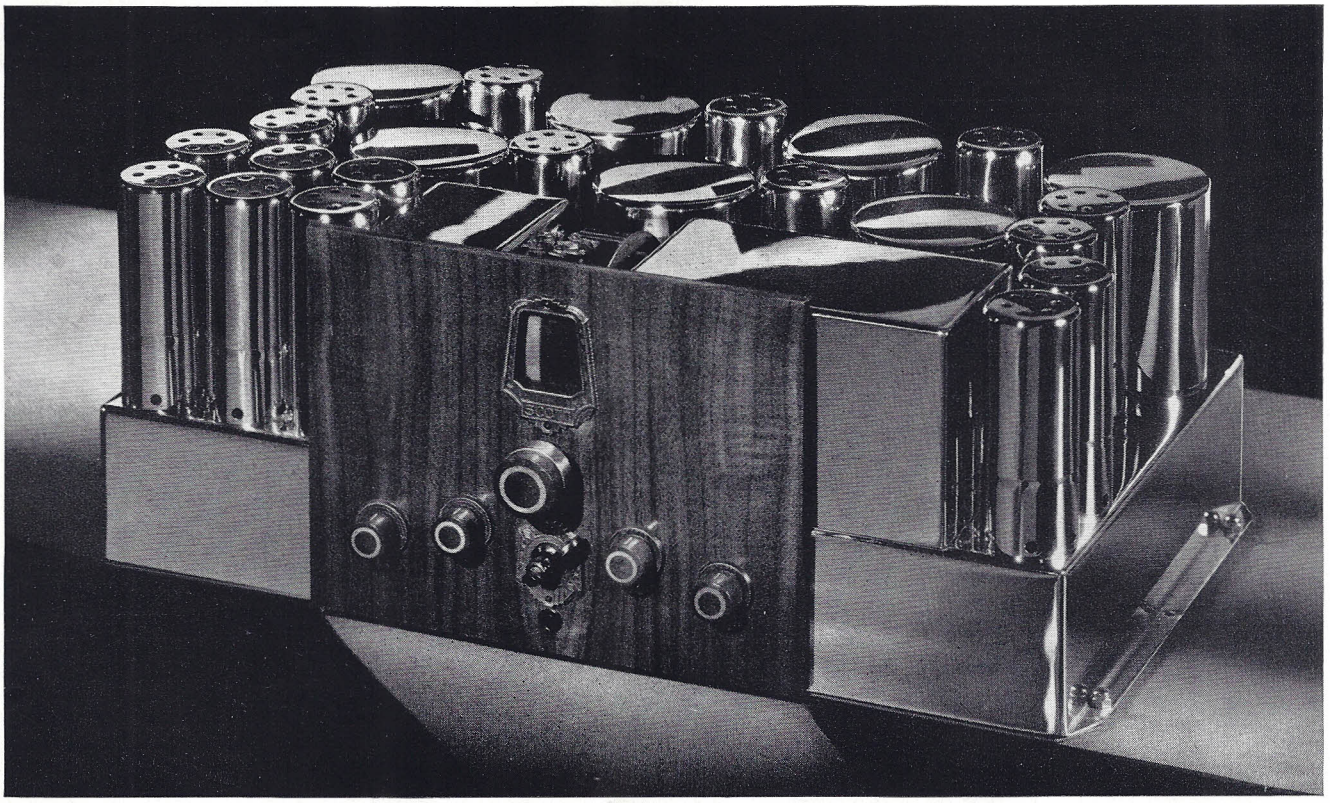


THE SCOTT FULL RANGE HIGH FIDELITY RECEIVER

WORLD'S FINEST RADIO RECEIVER

GUARANTEED—To outperform any other receiver in either a Laboratory or side by side reception test!

BECAUSE—It is built by more highly skilled technicians—With greater precision—From higher quality parts—Is more carefully adjusted and tested with Laboratory Precision Measuring Instruments—Is more accurately calibrated on all wave bands—Has Finer Tone—Greater Selectivity—Greater Usable Sensitivity—Greater World Wide Range—And because all claims we make we are prepared to PROVE 100%!

New Scott Full Range High Fidelity Allwave Sets New Standard in Selectivity Range— Continuously Variable from 2 to 16 KC

For the reception of local stations, extreme selectivity is neither necessary nor desirable. However, few owners of radio receivers desire to confine their listening to programs from local stations, in which case the question of selectivity becomes important, for to bring in very weak distant stations it is necessary that the receiver be selective enough to tune out the locals.

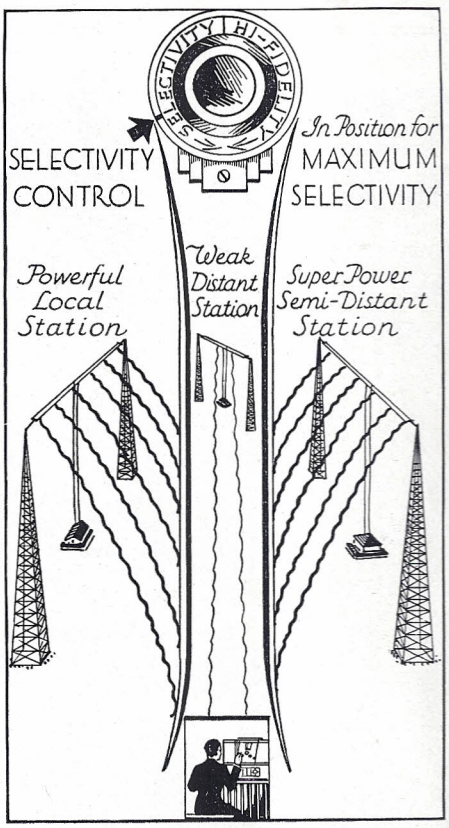
For many years, radio research engineers have been working on the problem of how to combine, in one receiver, extreme selectivity, so that weak distant stations on channels adjacent to powerful locals could be received clearly without interference, and yet, when listening to programs from local or semi-distant stations, the band width could be increased so that tone quality is not impaired by the cutting of side bands.

In the new Scott Full Range High Fidelity Allwave receiver, we are able by means of a recent exclusive development of our research laboratory, to provide selectivity that is continuously variable from as sharp as 2 Kc. selectivity or 4 Kc. band width for DX reception, to as wide as 16 Kc. selectivity or 32 Kc. band width for local or semi-distant stations.

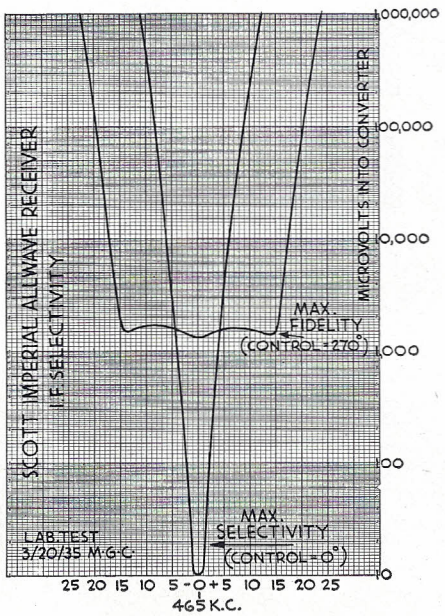
With this system, it is possible to secure the exact degree of selectivity desired to bring in a distant station without interference from local stations. For example, there is not the slightest difficulty here in Chicago in bringing in WOR at Newark, N. J., without a trace of interference from WGN, a 50,000 watt local station separated from it by only 10 Kc. On the other side of WOR, there is not only no interference from WLW, the 500,000 watt station at Cincinnati, but there is actually a silent spot between the two channels. It is rarely indeed that the full degree of selectivity is required to bring in one station without interference from another.

Until very recently, no receiver has been available to the public with any choice of selectivity at all, but incorporated a preset degree of selectivity which was necessarily a compromise from most reception conditions. One of the earlier methods used for providing adjustment of the selectivity was to incorporate a switch by means of which two different degrees of selectivity could be secured by cutting out one or two stages of the I.F. amplifier, so that in one position the receiver is sharp, and in the other broad. The principal objection to this system is that there is no variation between these two extremes.

When only two degrees of selectivity can be secured, in order to obtain an apparent degree of "High Fidelity" with the receiver in the selective position, the few high frequencies up to three or four thousand cycles passed thru the I.F. amplifier (according to how selective the receiver actually is) are sometimes accentuated two or three times louder than they would otherwise be by throwing another switch. However, it will readily be seen that only those high frequencies which can actually pass thru the I.F. amplifier can be amplified, so that it is impossible, by this means to secure any degree of what is considered real "High Fidelity" reproduction with the receiver in the selective position.



Weak Distant Stations Easily Brought Through Locals



Selectivity Curve

Other manufacturers have developed a system which gives a limited degree of variable selectivity by shunting the tuned circuits in the I.F. amplifier with a variable resistor. While this system provides a variation in selectivity, it is not possible to secure a very high degree of selectivity, as an actual test of a receiver using this system, or even an examination of a laboratory selectivity curve of any receiver using it will quickly prove.

Both of these systems fall short of the requirements of the radio enthusiast who is interested not only in reception from distant stations, but also in the finest possible tone quality from local or semi-distant stations.

An examination of the selectivity curve of the Scott Full Range High Fidelity Allwave Receiver reproduced on this page, shows that the engineers' ideal of a continuously variable degree of selectivity has at last been fully accomplished. In order to obtain this, four stages are used in the I.F. amplifier. In each of these stages is incorporated a unique selectivity adjustment system, an exclusive development of the Scott Radio Laboratories, which enables the selectivity of each I.F. stage to be separately controlled, thereby accomplishing a band pass effect, which enables you to secure any degree of selectivity from 2 Kc. to 16 Kc., or a band with from 4 to 32 Kc.

In addition to securing a very wide range of selectivity, this system at the same time performs another most important function for the DX enthusiast. When it is in the most selective position, it is also in its *most sensitive* condition, making it the ideal receiver for the reception of weak distant stations.

However, when listening to programs from local or semi-distant stations, the finest possible tone quality is desired. To secure this, it is necessary that the band width of the receiver be increased sufficiently to pass freely all frequencies that are being transmitted by the station you are listening to. This is accomplished in the Scott Full Range High Fidelity Allwave simply by turning the Selectivity Control knob from the maximum selective position, round as far as desired to increase the band width of the receiver, until every frequency the station is transmitting is being reproduced.

New Scott Full Range High Fidelity Allwave Sets New Standard in Extreme Useable Sensitivity—.6 Microvolt Absolute

For the reception of distant foreign stations, a very high degree of *useable* sensitivity is necessary, if programs are to be received with sufficient volume to be heard clearly and distinctly.

You have undoubtedly had the experience of trying to bring in some weak distant station, and found that no matter how you adjusted the volume, the signal from the station was lost in noise.

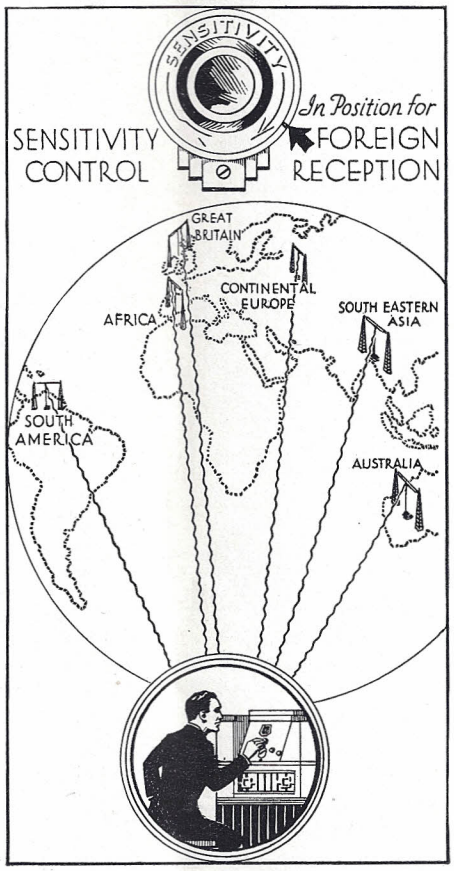
For many years, Scott Receivers have been famous for their extreme *useable* sensitivity or ability to bring in clearly, stations from every part of the world. The first long distance record was made by a Scott Receiver as early as 1924 when the Scott Super Eight established four World's Records for the consistent, night after night, reception of stations six to nine thousand miles distant, and hardly a year has passed since, that some long distance reception record has not been established by a Scott receiver.

Probably the most outstanding long distance reception record in the history of radio was made in 1931 and 1932 by a SCOTT ALLWAVE RECEIVER. For twelve consecutive months every program transmitted by short waves from VK2ME, Sydney, Australia, and every program (with the exception of three) transmitted from VK3ME, Melbourne, Australia, was not only received clearly in Chicago, but with such volume that from three to twenty 12" aluminum recordings were made of every broadcast they sent out during the whole year. This reception was fully verified and the report of the test is completely described in the booklet "Proof."

As recently as November, 1934, a DX test on a SCOTT ALLWAVE RECEIVER, on the broadcast band was made by Mr. R. H. Tomlinson, one of the official Radio News listening post observers. During a seven hour reception test between sunset on November 17th, and sunrise on November 18th, Mr. Tomlinson received and logged 39 foreign stations located in 12 foreign countries, and has now received complete verification of his reception from 38 of these stations. Such a record is one of which any radio designer can well be proud.

At the bottom of this page, you will note a curve titled "Signal to Noise Ratio," the importance of which cannot be over estimated. This curve shows exactly what proportion of the sensitivity of the receiver is *useable*, and what proportion is noise inherent in the receiver itself.

It will be noted on the Signal to Noise Ratio curve, that two curves are shown, one a solid curve and below it a dashed curve. The dashed curve was obtained by measuring the noise component with no carrier, while the solid curve was obtained by measuring the noise component with an unmodulated carrier.



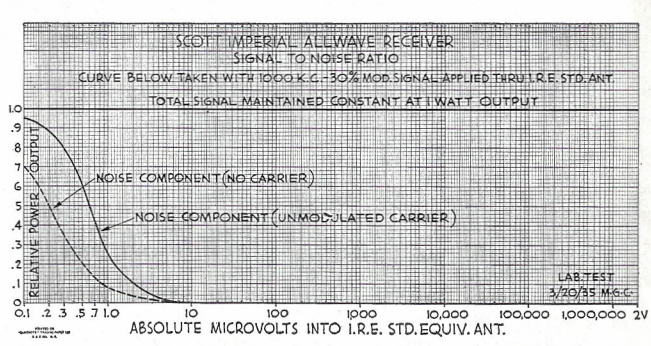
Foreign Stations in All Parts of World Received with Loud Speaker Volume

The method of measuring Signal to Noise Ratio with no carrier present, is a very popular one with many radio manufacturers, since it shows the receiver as having a much better Signal to Noise Ratio than when measured with an unmodulated carrier. However, we believe the method of measuring Signal to Noise Ratio with no carrier is both erroneous and misleading, *since it does not actually indicate the amount of noise present while a station is being received, but merely indicates the amount of noise produced by the receiver without the presence of the distant carrier.*

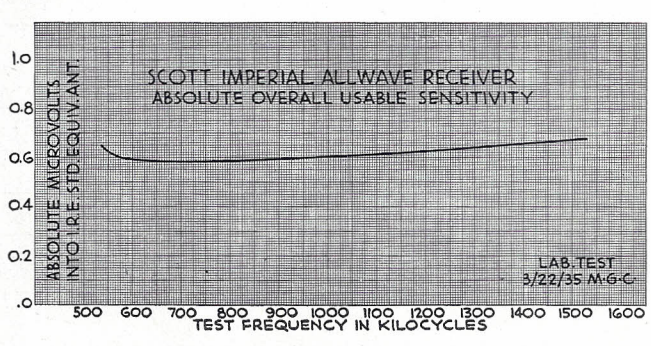
We believe the DX enthusiast is interested only in the actual amount of *useable* signal it is possible to secure from his receiver while the distant station is being received. The method of measuring Signal to Noise Ratio with an unmodulated carrier present gives a more accurate picture of the *useable* sensitivity of the receiver, *since it duplicates exactly the conditions that are present when actually receiving distant stations.*

Referring to the solid curve, it will be seen that when receiving a station producing as weak a signal as 1 microvolt (1 millionth of a volt) at the receiver terminals, we have 75% usable signal, and only 25% noise, and that even with such an extremely weak signal as one corresponding to .6 of a microvolt, it is a signal still so clean and comparatively free from noise, that it permits easy identification of station and program.

A comparative side by side listening test with that of any other receiver in the world today, will quickly prove that the Scott Full Range High Fidelity Allwave will not only bring to you the programs from the stations of the world with finer tone, but also, on account of the very high useable sensitivity, with greater volume and clearness. It is without question the world's finest long distance receiver.



Signal to Noise Ratio



Absolute Overall Useable Sensitivity

New Scott Full Range High Fidelity Allwave Sets New Standard in Power Output—

35 Watts Strictly Class A—50 Watt Class A Prime

The graphs at the bottom of the page explain in a clear manner, why the new Scott Full Range High Fidelity Allwave has been designed with an amplifier providing a power output of 35 watts strictly pure Class A, and up to 50 watts class A prime amplification.

During the course of a single program, loud notes or peaks occur many times in the transmission which rise to as high as 30 or 40 watts, and if the volume is turned up sufficiently so that the program can be heard comfortably in the average size room, these peaks overload the amplifier badly, causing certain notes to sound fuzzy, harsh or distorted. This form of distortion is especially noticeable when listening to a group singing, an organ solo, or a full sized orchestra.

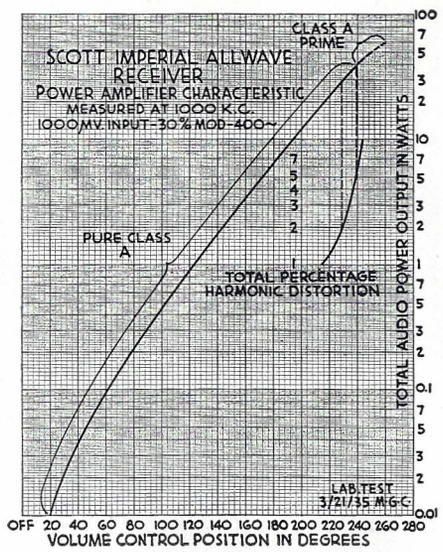
The maximum undistorted power output of the average radio receiver is not over 6 watts, while some few of the higher priced models have an undistorted power output of up to 10 watts. It is clearly evident that if the most perfect tonal reproduction is to be secured, the power amplifier must be capable of handling every peak or note up to at least 40 watts without overloading. For this reason, the new Scott Full Range High Fidelity Allwave is provided with ample reserve power in the amplifier, so that it will handle peaks up to as high as 50 watts, before overloading occurs.

The non-technical radio enthusiast will have a clearer idea of why an amplifier with such a very large degree of reserve power is provided in our new receiver, by comparing it with the engine of an automobile.

If you were considering the purchase of an automobile, you would certainly require one that would not only take you along level roads at a good rate of speed, but also one that will, when you are touring in hilly country, have sufficient *reserve power* to take you up the grades nearly as speedily as it does on the level road. Obviously, if an automobile were designed with just sufficient power in the engine to carry you along smooth level roads at the desired rate of speed, with no reserve power to provide a fair rate of speed on upgrades, you would not consider it very satisfactory.

Designers of modern automobiles give their purchasers complete satisfaction by providing a car with an engine having ample reserve power, so that it will carry you over all kinds of roads speedily and in comfort. In just the same way, the designer of a modern high quality radio of today must provide his receiver with a power amplifier that will reproduce, without distortion or blasting, every note that comes from the loud speaker. It should be possible, should you desire it, to listen to any type of program with the original volume it was transmitted from the broadcast station, *and hear every note or sound as clear and undistorted as it left the studio.*

The technically minded will find the power amplifier curve extremely interesting, proving as it does beyond question, the very advanced design and distortionless power handling capacity of the power amplifier incorporated in our receiver.



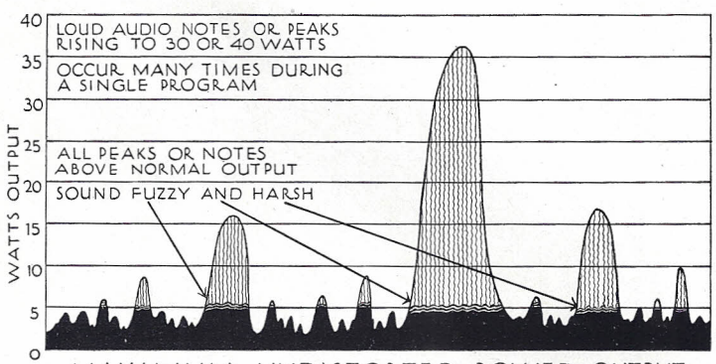
Power Amplifier Curve

The first point that will be noticed about the curve is the fact that up to 30 watts, the output is pure Class A, with a total harmonic distortion of less than 2%, and only 3% at 35 watts, a degree of distortion which cannot be heard by the human ear.

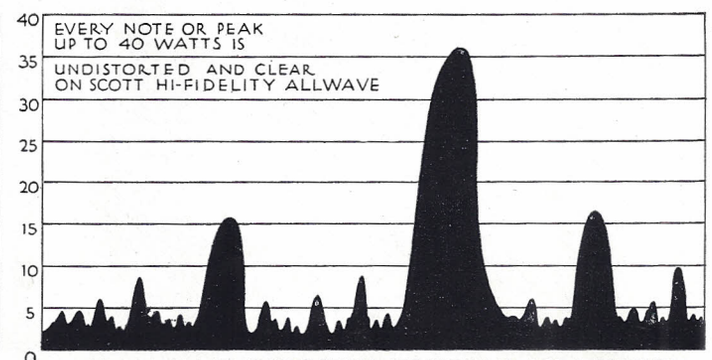
Pure class A amplification is universally recognized as being the most perfect form of audio amplification obtainable. This is due to the fact that each of the push pull tubes in the amplifier stage are operated so that they produce practically no distortion whatsoever, and what little there is, is practically eliminated due to the push pull action in which one tube partially cancels out the distortion in the other.

In the medium and most of the higher priced production type receivers, including the high fidelity models, class A prime amplication is generally used, because the same power output can be obtained with a much smaller and cheaper type of amplifier, due to the fact that each tube in the output stage is operated at higher than its undistorted power handling capacity, with the push pull arrangement being counted upon to cancel out as much as possible of the distortion generated in the individual tubes.

While it would have been considerably less expensive to have provided an amplifier operating continuously as class A prime, we believe the purchaser of a Scott Full Range High Fidelity Allwave Receiver is looking for a radio with the very finest distortionless reproduction it is possible to secure, and for this reason a full sized, strictly pure class A amplifier up to 35 watts is provided, operating only in the class A prime region from 35 to 50 watts.



MAXIMUM UNDISTORTED POWER OUTPUT OF AVERAGE RADIO RECEIVER NOT OVER 6 WATTS



MAXIMUM UNDISTORTED STRICTLY CLASS A POWER OUTPUT OF SCOTT HI-FIDELITY ALLWAVE RECEIVER 35 WATTS... UP TO 50 WATTS CLASS A PRIME...

The New Scott Allwave Super Antenna System

In addition to the research which has been carried on continuously in the Scott Laboratory during the past five and a half years perfecting our designs for an ALLWAVE receiver, constant experimentation has also been carried on to develop an antenna system which would not only give maximum pick-up of signals on both the broadcast and short wave bands, but at the same time reduce as much as possible the effect of electrical interference or man-made static in the reception of stations on the short wave bands.

Reception of short wave stations on the regular single wire type of antenna used for reception on the broadcast band in locations close to a high-way with heavy automobile traffic, or in locations where electrical equipment is used, is far from satisfying. Electrical interference which does not cause the slightest interference in the reception of stations on the broadcast band very often makes reception from stations on the short wave bands almost impossible. So, naturally, constant experimentation has been carried on in the Scott Laboratory with a view to eliminating this interference so that reception on the short wave bands might be as satisfactory as it now is on the broadcast band.

The new SCOTT Super Antenna System is, we believe, the last word in ALLWAVE Antenna design, and a series of tests just completed to determine the relative efficiency of various types of antenna proved in a most conclusive manner, that the Scott Super Antenna System is superior to any other short wave antenna. The new SCOTT Super Antenna was tested against four other types of antennae:

(1) A Standard single wire antenna, 80 feet long including lead-in.

(2) A standard transposed doublet type antenna.

(3) A well known transmission doublet type antenna.

(4) A well known shielded lead-in type antenna with associated transformers.

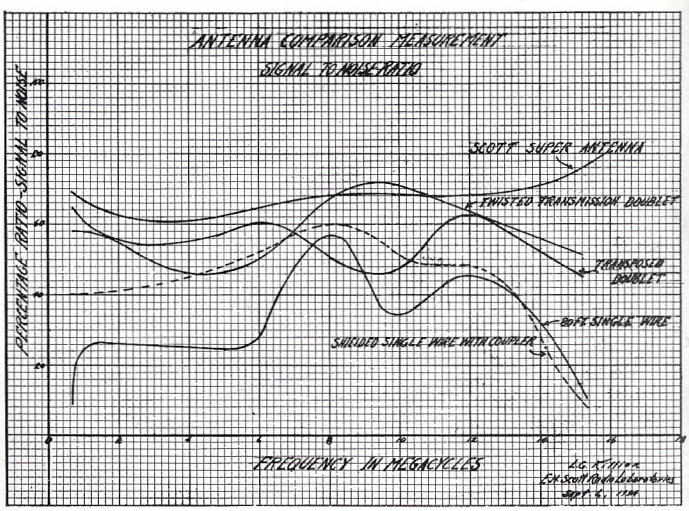
Switches were arranged so that the various type of antennae could instantly be thrown and connected to a SCOTT FULL RANGE HI-FIDELITY RECEIVER. A sensitive G.R. output meter was coupled to the receiver, and distant stations tuned in from 640 Kc. to 16 megacycles. These stations were first tuned in on the SCOTT Antenna, the volume control set and the output in d.b. noted. Each of the antennae were then tested in turn on the same station, and the output in d.b. noted after each was switched on. This reading gave the actual output of signal plus noise at this volume level. The same process was repeated on seven different frequencies.

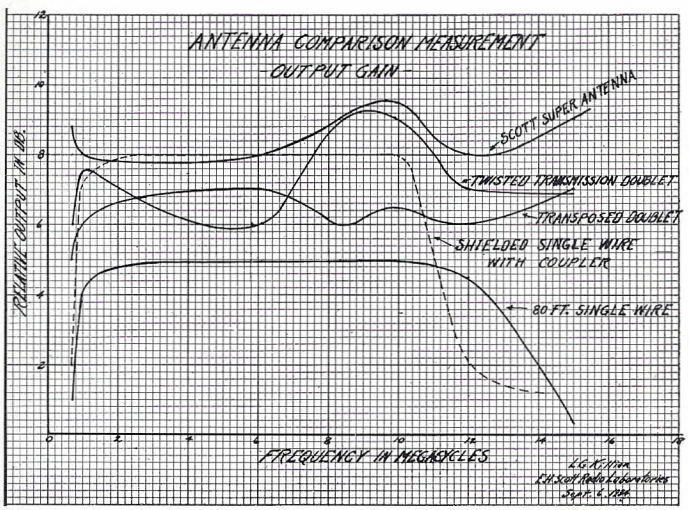
After each check as above, the set was slightly detuned and the output again noted, which gave the actual noise level. The difference of the two sets of readings on each antenna gave the actual signal output, and the ratio of the signal output to the signal plus noise value, gave the signal to noise ratio. This latter value was averaged for all readings so that a more accurate value could be had. The tabulation of the data secured is given below and on the plotted curves which show the output gain and the signal to noise ratio of each antenna.

To properly interpret the curves it should be noted that an extremely loud signal, does not necessarily mean the most efficient antenna in a location where the local noise level is high. The real figure of merit is the ratio of signal to noise. On this basis the curves show the actual output above the noise level, which is the only real method of comparison of SHORT WAVE antenna system in metropolitan or noisy locations.

An examination of the curves proves beyond question the superiority of the SCOTT ALLWAVE SUPER ANTENNA SYSTEM for uniform gain over the entire wave band, and for effective noise reduction.

The SCOTT SUPER ANTENNA SYSTEM has been designed especially for the use of owners of SCOTT ALLWAVE RECEIVERS, to whom it is now available at a net price of $7.50.





RATIO OF SIGNAL TO NOISE IN PER CENT

Frequency Megocycles	Scott Super Antenna	Twisted Transmission Doublet	Shielded Lead-in Type	Transposed Doublet	Regular 80-ft. Wire
.64	69 %	58 %	40 %	65.4%	9.1%
.99	66.6%	58.1%	53.3%	60.8%	24.5%
6.1	65.3%	51 %	53 %	60.2%	28.5%
8.19	68.6%	68.4%	60 %	50 %	56.8%
9.87	68.4%	71.5%	52 %	46.4%	34.5%
11.86	68 %	64.4%	48.5%	63.5%	46 %
15.2	75.2%	50 %	8 %	46 %	11.5%

AVERAGE SIGNAL OUTPUT IN DB—With Volume Control Constant at Each Frequency

Frequency Megocycles	Scott Super Antenna	Twisted Transmission Doublet	Shielded Lead-in Type	Doublet Transposed	Regular 80-ft. Wire
.640	8.8 DB	6	2	5	1
.990	8.0 DB	7.5	7	6	4
6.1	8.0 DB	6	8	7	2
8.19	9.0 DB	9	8	6	5
9.87	9.5 DB	9	8	6.5	5
11.86	8.0 DB	7	4	7	4.5
15.2	9.0 DB	7	1	6	.2

The Scott Full Range High Fidelity Receiver—A Custom Built Radio

PROVED BY EVERY TEST THE WORLD'S FINEST ALLWAVE RADIO RECEIVER

WHEN anything is described as "custom built," you immediately think of something that is exclusive, finely built by hand by expert craftsmen, from the very highest grade of materials. You imagine something outstanding in design, and above the average in every respect. The words "custom built" or "custom made" implies an exclusive product, made in very limited numbers for those who desire something far above the ordinary.

When we talk about a "custom built" radio receiver, just what does it imply? In what way is it different from the regular commercial type?

First—It implies a receiver that is designed **to give performance far beyond the ordinary commercial receiver.**

Second—It implies a receiver designed by one whose name is **known thruout the engineering profession as an outstanding figure in radio receiver design.**

Third—It implies a receiver built from the **very highest quality parts.**

Fourth—It implies a receiver **built in limited numbers by Laboratory technicians** with years of experience in the building of fine receivers.

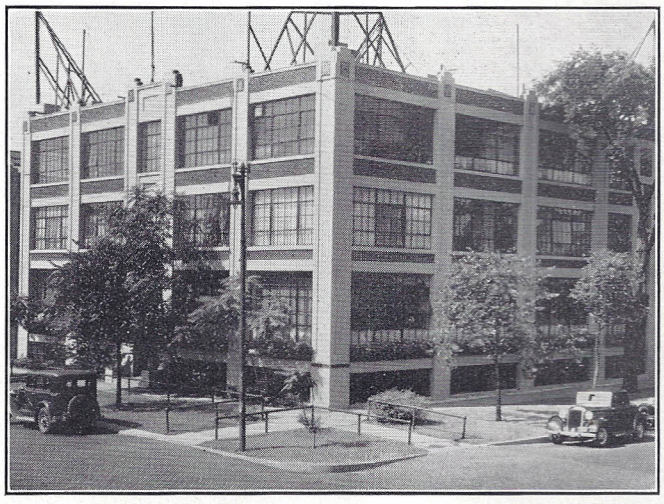
Fifth—It implies a receiver which is **checked in every step of its construction by experienced Laboratory engineers.**

Sixth—It implies a **receiver which is actually designed and built in the Laboratory of its maker and sold exclusively by him,** and which in every way conforms to the generally accepted high standards associated with true "custom" construction.

Every Step in Construction Carefully Checked

Thruout every operation in the building of a Scott Receiver, there is constant testing, checking and rechecking to assure consistently perfect performance in the finished receiver.

The technicians who build Scott Receivers have all been trained in precision work by Scott Laboratory Engineers, and the result is, naturally enough, a product of fine craftsmanship. To cover all the interesting and vitally important tests a Scott Receiver goes thru before it is delivered to its purchaser would require a volume. Suffice it to say that not one single point is neglected, and the time spent merely checking and testing each step in construction of a Scott Receiver is, I believe, MORE than the total construction time required for the complete assembly and testing of about ten ordinary production type radio sets.



SCOTT RECEIVERS are designed, built and tested in this modern Laboratory. On the top floor, left side, is located Research and Experimental Laboratory—on right side Construction and Test Departments—the second floor houses the General Offices and Demonstration Studios—on the first floor is located the Foreign Department.

Every Scott Custom Built Receiver Tested on Foreign Station

With the building completed, the testing and checking of the Scott Receiver really begins. Each one must go thru a series of precision measurements and adjustments, which assure keenness of selectivity and sensitivity, fineness of tone quality, perfection of calibration. Finally, each set must demonstrate its ability in actual performance on the air when it must bring in with good volume stations in various parts of Europe, Central and South America, as well as various broadcast stations in the U.S.A.

To carry on such extensive and exacting tests under proper engineering control, requires a vast amount of delicate and unusual laboratory equipment to say nothing of much time on the part of the highly skilled technical men.

One of the instruments used to make the final tests on the SCOTT FULL RANGE HIGH FIDELITY RECEIVER is shown on next page. The particular piece of equipment shown has just been finished after nearly a year's development work, and is the new Standard Signal Generator which will be used to calibrate, measure and test it.

Our new Standard Signal Generator has a primary frequency which is crystal and temperature controlled, and is checked regularly with the Bureau of Standards Frequency station WWV, at Washington, D. C. An idea of its extreme preciseness may be gained from the fact that the maximum variation in its frequency calibration up to this period has been less than 5 cycles in a million, and on most checks has been accurate to within 2 cycles in a million.

This new equipment gives accurate signal intensities at all frequencies down to .1 of a microvolt, while on other Signal Generators, .1 of a microvolt cannot be read with any degree of accuracy.

Starting at the upper left hand corner of the photograph shown, is the standard frequency source, consisting of a temperature controlled crystal oscillator with its associated buffer amplifiers to isolate the standard frequency amplifier from the crystal.

Immediately below this is the modulator unit which provides a constant modulation of 30% at all frequencies. Below the modulator unit is the power supply for the crystal oscillator and its associated equipment. Below the power supply is the fixed 400 cycle audio oscillator and the patching panel to connect the output of either variable or fixed oscillators to the various circuits.

Below the patching panel is located the variable beat frequency oscillator with its individual power supply. This oscillator covers a range of from 5 to 16,000 cycles.

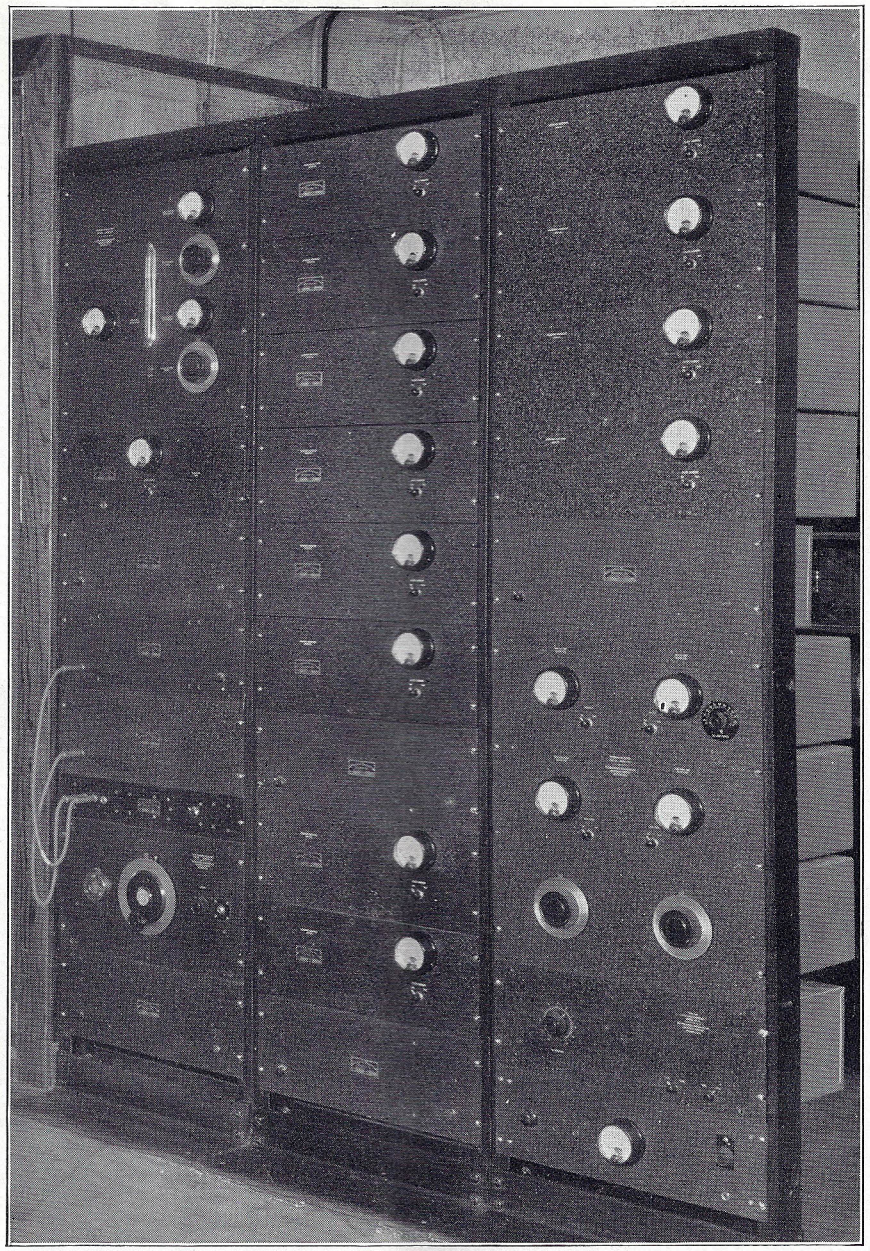
The middle rack contains the amplifier for the individual short wave test

frequencies of 2, 4, 6, 10, 12, and 22 megacycles. In addition to these fixed frequencies, all other frequencies are available which are multiples of two of the megacycles mentioned above.

On the right hand rack are carried the amplifiers for the broadcast band test frequencies with the power supply feeding them located directly underneath. These frequencies are controlled from the 100 Kc. primary standard in the Research Laboratory. In the lower section of this rack are contained the amplifiers used in checking the long wave frequencies on receivers built especially for use in Europe.

Scott Custom Built Receivers never have, and never will be built to a price mark, but always to a quality standard. The unrivaled richness of tone of Scott Receivers; their ability to bring in clearly foreign stations in every part of the world; the accuracy of their calibration; their unfailing perfection of service in every part of the world; are the result of untrammeled efforts in the Research Laboratory.

From the Scott Research Laboratories, have come many of the new and revolutionary developments in radio. The list of Scott "Firsts" which have been pioneered and developed in our Laboratory, during our ten years in the radio business, is long and distinguished.



The Standard Frequency Signal Generator used to check and calibrate the Scott Full Range High Fidelity Receiver

General View of Assembling and Wiring Department

Perhaps the most outstanding "FIRST" is the now universally used "ALLWAVE" receiver.

Our first "ALLWAVE" was the SCOTT SHIELD GRID NINE, which was brought out in 1928, tuning all wave lengths from 20 to 550 meters, and since that time all SCOTT RECEIVERS have been "ALLWAVE."

It is only within the past twelve to eighteen months that most other manufacturers have introduced "ALLWAVE" receivers, proving, that in this feature, the Scott Laboratory was at least five years ahead of commercial receiver manufacturers.

The now universally used Transmission Type Noise Reducing Short Wave Antenna, which has been copied in various forms by practically every other manufacturer in the radio industry, was first introduced and sold with the SCOTT ALLWAVE in 1930.

When the SCOTT WORLD'S RECORD SUPER TEN was introduced in 1927, it gave to the radio world an entirely new conception of what really fine tone quality could be obtained from a radio receiver, for it was the first receiver to use the 210 power tube as part of the design in a radio receiver.

To this record is now added the first true "High Fidelity" FULL RANGE HIGH FIDELITY RECEIVER, covering the complete audible range from 25 to 16,000 cycles.

The Scott News

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E. H. Scott Radio Laboratories
Chicago

E. H. Scott, *Editor*

Practically everyone who has visited the laboratory during the past few weeks to see and hear our new receiver, on being shown the complete chassis, amplifier and speaker installed in the console, generally makes a remark something like this: "What a marvelous instrument. I have never seen or heard anything like it before. Why don't you show a rear view of it in your literature, completely installed as it is here."

E. H. SCOTT

It is not necessary to point out that no matter how beautiful the console of a radio may be, *it is what's inside that console that determines the quality of the programs you are going to hear, and whether you will be able to bring in clearly programs from the stations of the world.* However, I believe you will agree with me, after an examination of our many beautiful custom built consoles, that they are as superior in quality to the ordinary radio console, as the chassis.

An Interesting Comparison

Last month I prepared a very comprehensive comparison chart by which you could compare the various features of the new Scott Full Range High Fidelity Allwave with those of any other receiver. You may find it interesting when looking over the various receivers you have under consideration, to take along with you not only the comparison chart, but also this copy of the News, then ask to see the chassis inside the cabinet, and compare it with our new receiver. It is only when you make an actual comparison, that you begin to realize what a tremendous difference there is between this beautifully designed custom-built receiver, and the production type of receiver.

You have undoubtedly noticed on looking over the specifications that twenty-three tubes are used in my new receiver. Many times during the past two years, you have read articles in radio magazines and also in some manufacturer's advertising literature insisting that not more than ten tubes were necessary in any radio receiver. However, during the past few months, I have noticed quite a large number of receivers have been announced which are using up to twenty tubes. Is it possible that these manufacturers are now discovering that to secure better tone and clearer reception from distant stations, they must use more tubes? It really begins to look that way, doesn't it, and once again you have the proof that the design of a Scott receiver is from one to three years ahead of the field.

During the past few weeks so many highly enthusiastic letters have arrived at the laboratory describing the performance of our new receiver, that I could fill every page of this issue of the "News" with them. However, I believe you will be interested in reading just a few, which will give an idea of the kind of performance they are giving their new owners.

German Reception Perfect

The first is a letter from an owner in Rydal, Pennsylvania:

> "The reception this afternoon was beyond question, ideal. DJC, Germany, was perfect, with no interference, no fading, and with exceptionally wonderful tone. Due to the fact that my small child was upstairs attempting to go to sleep, it was necessary for me to use less than ¼ of the volume, and at that it was loud enough to reach the second floor and keep him awake.
>
> "On the broadcast band last evening, the static was terrific. However, when the set was tuned to a station correctly, the static interference could be dropped to a minimum. I noticed particularly that WJZ, our most powerful local, or semi-local in this case, as it is about 80 miles away, could be absolutely tuned out, allowing perfect reception from WJR. This I have never been able to do on my——— which is a fine set, even at the present time. This reception was accomplished, as I say, under extremely heavy static conditions existing last evening between 8:00 and 10:30 P. M., and with the volume less than ¼ turned on." D. W. Dixon.

The Selectivity Tested

Here is a very interesting letter from an owner in Spartanburg, S. C.:

> "Installed my new receiver last Monday, it certainly is a wonderful instrument, and we have enjoyed it to the fullest extent this week. Last Friday night I entertained about 150 youngsters at one of the clubs here with a dance. Wayne King, Blue Steel, and Freddie Martin's orchestras sounded as if they were right here in the room.
>
> "With regard to the fidelity, I was afraid when I wanted to use it to the best possible advantage, that it would not give me enough selectivity for those distant stations, but I find there is not the slightest interference from adjoining stations. As an example, I used it on WGN with not a trace of interference from WOR. When I tuned in WOR, there was not a bit of interference from WLW. We are dependent on these stations, 600 to 1000 miles away, for our reception with one exception, that is, Atlanta. I was greatly pleased at this, as I feared I might not be able to use any degree of Fidelity on those stations, but I can say the tone is simply wonderful.
>
> "The kids crowded around the instrument looking it over as tho it were a curiosity, and the older people in the crowd haven't stopped talking about it yet.
>
> "It would be impossible for me to begin to tell you of the pleasure I have had from owning your sets over the period of four years I have been buying them from you."
> A. L. Julienne.

A Musician Describes the Tone

And here's one from Toledo, Ohio, that is interesting, coming as it does from a musician:

> "I have been receiving the English and German short wave stations, and Havana, Cuba, with terrific volume.
>
> "As regards tonal quality, I play the string bass in my own dance orchestra, and the bass reproduction is marvelous, in fact, uncanny. The members of the band, after we have finished practicing, want to stay the rest of the night to listen to the dance bands, as they have never before heard such clear cut reproduction as your receiver gives." H. Eggert.

European Broadcasts Thrilling

During the past week, the broadcasts from Europe have been particularly interesting, and from the advance programs received of the events scheduled for transmission during the next few months, will continue to be interesting. Here's a letter received from Sherman, Texas, describing the reception of the Jubilee celebrations in England:

> "I am highly pleased with the reception on my receiver. On Monday morning I was able to pick up and listen for more than an hour to King George's Silver Jubilee celebration in London, and, of course, this gave me quite a thrill. I have also been able to pick up W9XBY on 1530 Kc., the High Fidelity station located at Kansas City, and although it only operates on 1000 watts, the reception here was very pleasing." R. Key.

For many years, Scott custom-built allwave receivers have been bringing to their owners in over 140 different foreign countries, not only programs from their own land, but many from broadcasting stations in England, Germany, France, Spain, Italy and other foreign countries, with as fine tone, as much volume, and as clearly, as programs from stations only one or two hundred miles distant.

Today, the new custom-built Scott Full Range High Fidelity Allwave is so advanced in design, that it sets entirely new world standards in radio receiver performance. Now, more than ever before, it is The World's Finest Radio Receiver.