



BRANDES  
*Wireless  
Receivers*

Donated by  
LELAND J. SPAULDING  
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# BRANDES *Wireless Receivers*

The Receivers  
with  
"Matched Tone"

Made by  
C. BRANDES, Inc.  
*Wireless Receiver Specialists*  
32 UNION SQUARE NEW YORK

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by  
C. BRANDES, Inc.

# BRANDES *Wireless Receivers*

THE radio operator does not have to be told that the prime requisite in a head set is *sensitiveness*.  
But sensitiveness means more than merely being able to respond to weak signals.

Satisfactory sensitiveness means the ability to bring out a sharp, clear sound easily distinguishable in spite of static disturbances.

It is with the object of attaining this maximum sensitiveness that we have brought Brandes Wireless Receivers to their high state of efficiency.

Brandes Receivers need no introduction to the man who knows about wireless, nor to the amateur who is a radio enthusiast. It is to the interest of both of these, however, that the real points of Brandes superiority are made familiar.

Brandes superiority scores 100% on each of these five points:

- |                  |              |               |
|------------------|--------------|---------------|
| 1. Sensitiveness | 3. Lightness | 4. Service    |
| 2. Dependability |              | 5. Appearance |



## BRANDES "MATCHED TONE" MEANS SENSITIVENESS PLUS

A receiver with a "mushy" tone, no matter how sensitive, can never do more than make signals *audible*. To make them *readable*, a clear, sharp tone is essential.

One of the first features of Brandes Receivers which attracted the attention of wireless students and experts was its extremely clear, sharp tone. Through careful study and experiment we have been able to obtain a pitch of tone which renders faintest signals distinct and readable. Even if you are using only a single receiver, the tone is still clear and distinct.

But we have gone this careful tone pitch one better, by a feature which is exclusive in Brandes Receivers, i. e., the *careful matching in tone of both receivers*.

A set of Brandes Receivers is like two violins playing in unison, the result being a clearer, stronger, more vivid tone. Or like two voices calling across space, both voices pitched at the same tone, and, therefore, carrying much farther and much clearer.

As a more specific and technical example, take a note in the middle register of a piano. This note is obtained by striking three strings—toned alike—at the same time. The result is far greater volume and distinctness than could ever be obtained from a single string.

Sound, as we all know, is carried in vibrating waves. When these waves come in contact with other waves traveling at a different rate of vibration, the result is naturally a confusion, varying with conditions, and resulting in a sacrifice of strength on the part of each series of waves.

You can readily see how this "interference," as it is called, can greatly hamper an operator whose two receivers are toned at two different vibrations.

It is this *matched tone* in Brandes Receivers which alone places them in a class entirely apart from all others.

## BRANDES DEPENDABILITY

Brandes Wireless Receivers are designed and constructed solely for wireless work. And they are made by a *concern which manufactures wireless receivers only*.



They are not telephone receivers rewound and adapted for use in wireless work.

No part is used in the construction of a Brandes Receiver which has not been proved by actual test to be the *best for its particular purpose*.

This is true also of the methods we use to put Brandes Receivers together. Take for example *ohmic resistance*. We do not wind Brandes Receivers to attain merely a certain resistance. Each bobbin is wound with the *number of turns of wire* essential to the best results.

This winding varies, of course, in our three styles of receivers, because of the difference in sizes and styles of bobbins. But in each type the winding is always absolutely uniform. Our "Navy" Receivers are approximately 3,200 ohms, our "Transatlantic" 2,800 ohms and our "Superior" 2,000 ohms.

Brandes diaphragms are of a special, thin, soft iron, plated with tin. Some receivers have black enameled iron diaphragms, but such receivers are not sensitive enough to give the very clear, distinct tone which characterizes Brandes Receivers.

Brandes ear caps are of hard rubber. And they rest far more comfortably on the ears than caps made of harder composition. Such caps have a tendency to become rough and irritate the ear. Hard rubber will remain always smooth.

Brandes magnets are the highest grade tungsten steel. They possess not only great magnetic strength, but they retain their magnetism almost indefinitely.

Brandes cores are made of twice-annealed Norway iron, which is most sensitive to rapid magnetic changes. In the "Navy" and "Transatlantic" sets, the cores are laminated. This eliminates the generation of Foucault currents, which would tend to make them sluggish.

For maximum effect, the windings should be as close to the core as possible. We obtain this result by winding the wire directly on the cores after insulating them with a layer of fine linen paper, treated against moisture.

Brandes cords are noiseless and they grow more noiseless through use. We do not waterproof them, as some makers do, because this would make them rustle and disturb the operator. Waterproofing is not necessary because wireless receivers are not



intended for work directly in the open. Our cords are all six feet in length.

Just as important, however, as the quality of material that goes into Brandes Receivers, is the fact that they are *entirely made by hand*. And only the best skilled labor is utilized.

The natural result of this is a degree of *accuracy* which otherwise could not be obtained. For the variation of even 1/1000th of an inch in adjustment can utterly impair the sensitiveness of a receiver.

Furthermore, one great point about Brandes Head Sets is the *permanence* of their adjustment. It is very difficult to get a Brandes Receiver out of order.

Before a Brandes Receiver goes out of our factory it receives a very careful inspection. It is measured by micrometer tests which would detect the slightest variation in adjustment. Needless to say no receiver is passed which does not conform to every test made with this delicate instrument.

Completed receivers are further tested on wireless signals against a standard receiver. They must equal or surpass this before they meet our approval.

We bring out the above points to emphasize the *absolute dependability of Brandes Receivers under every condition*. With designing that is right, with materials that are right, with construction and assembling that are right, the result must be a receiver whose dependability is maximum.

### BRANDES LIGHTNESS

The wireless operator is compelled to wear his head set for hours at a time. Therefore, his head set must be both light and comfortable.

When we designed Brandes Head Sets we intended them primarily for professional use.

We use the lightest possible material compatible with sensitiveness, strength and permanence of adjustment. We make the receiver shell of hard-drawn aluminum—combining strength with extreme lightness. The use of a high grade of tungsten steel in the magnets permits the use of less metal with full magnetic power.

The head bands of our "Navy" and "Transatlantic" Head Sets are very flexible, hard rubber covered. This means lightness plus extreme comfort. In "Superior" Sets we use German silver of extreme light, pliable quality.

We received many comments from users of Brandes Sets of all types on their comfort and easy adjustment, and for the fact that they can be worn for hours without making the wearer conscious of them.

In selecting your head set, you cannot afford to overlook the important feature of lightness. No matter how long you wear a Brandes Head Set at a time, it will not cause discomfort. And it will continue to perform this service day after day.

### BRANDES APPEARANCE

More than one owner of a Brandes Head Set has felt a thrill of pride over its handsome, professional appearance. In each of the three styles, we endeavored to preserve trim, practical neatness, something sought after by both amateur and professional operators.

The compact size of the receivers, the neat design of the head band and the orderly adjustment of the cords, all contribute to a handsome, efficient appearance.

### BRANDES SERVICE

If given ordinary care, Brandes Receivers will give good service indefinitely. And they are designed and built to give that same service *steadily*, day after day.

Hundreds of owners of Brandes Receivers that have been several years in service would not exchange them, even for new ones. As for changing to other makes, that would be out of the question with a Brandes operator.

It is practically a rule that we never hear of any trouble from purchasers of Brandes head-sets. Whatever repairs we are called upon to make are generally the results of abuse or accident.

### THE PERSONAL CHOICE OF PROFESSIONALS

It is interesting to note that very many Brandes Receivers are bought by operators who prefer them to the kind their employers supply. These professional operators, naturally, have had the opportunity of comparing Brandes Receivers with other makes on the market.



## BRANDES "NAVY" TYPE RECEIVERS

3,200 Ohms

### Guaranteed the Best Long-Distance Reading Receivers

**A**N instrument de luxe. Designed especially for professional work, and used to-day by the United States and foreign governments, by leading universities and colleges, and by professional operators all over the world.

Possesses a characteristic, peculiarly soft, clear tone—a great advantage in long-distance reading.

Construction extremely light and rigid. Cases of hard-drawn aluminum. Ear caps of hard rubber, perforated with small holes in place of the usual single hole in center. This gives extra protection to the diaphragm.

Ball and swivel adjustment on back of each receiver allows it to be placed over the very center of ear. Swivel is hard rubber covered, to prevent "grounding" or short-circuiting, should swivel come in contact with cord terminals.

Head band of hard rubber, absolutely sanitary. The best fitting head band ever devised. Double adjustable.

Cord of finest quality, six feet long. Covered with green silk. Fitted with special terminals to facilitate easy removal. This insures safety from damaging the receiver. In some instruments it is necessary to open the receiver to remove the cord. This is a common cause of bent diaphragms.

Diaphragms of special metal 6/1,000ths of an inch thick, plated with pure block tin to prevent rusting. Furnished exclusively with the Navy Receivers, and vastly superior to japanned diaphragms.

Magnets of special tungsten steel, having a permanent and uniform magnetism.

Cores of twice-annealed Norway iron, laminated.

Wire used in winding is of pure, annealed copper 2/1,000ths of an inch in diameter, covered with uncolored silk. Wound to the fixed number of turns proved by many tests to give the best result, having an approximate resistance of 3,200 ohms per set.

Weight, in use, 9½ ounces.

Price, complete with head band and cord, \$14.

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## BRANDES "NAVY" TYPE RECEIVERS

3,200 OHMS

Shipping Weight 1 lb.

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Price complete, \$14.



## BRANDES "TRANSATLANTIC" TYPE RECEIVERS 2,800 Ohms

### Professional Receivers for Long-Distance Use

**G**UARANTEED, unqualifiedly, to be better than any other receivers sold at this price, and better than many that cost higher.

This model, like the Brandes "Navy," is designed for professional use. Its price, however, places it within the means of many amateurs as well. It is used by both professional and amateurs throughout the country.

Similar in general principles to the "Navy," using the same high-grade materials and the same careful workmanship.

Receivers a trifle larger than the "Navy" style, but extremely sensitive and characterized by a similar soft, clear tone. The slightly larger size makes them particularly adaptable for use where there is considerable extraneous noise, because they cover the ear more completely.

For this reason they are very popular among professional operators on naval vessels and ocean liners. They are also used by many land stations, both here and abroad, including the famous Eiffel Tower in Paris, France.

Diaphragms of thin, soft iron, plated with block tin, thickness  $6/1,000$ ths of an inch. This insures extreme sensitiveness and freedom from rust.

Ball and Swivel adjustment on back of each receiver allows it to be placed directly over the ear. Swivel covered with hard rubber to prevent "grounding" or short-circuiting, should it come in contact with cord terminals.

Head band of hard rubber, double adjustable type. Sanitary and comfortable.

Six foot cord covered with green silk. Like the "Navy" type, fitted with special terminals to facilitate easy removal.

Cores of twice annealed Norway iron, laminated and wound with pure copper silk insulated wire to the number of turns required for best results. Resistance approximately 2,800 ohms to a set.

Weight, in use,  $11\frac{1}{2}$  ounces.

Price, complete with head band and cord, \$10.



## BRANDES "TRANSATLANTIC" TYPE RECEIVERS

2,800 OHMS

Shipping Weight 1 lb.

Price complete, \$10.



## BRANDES "SUPERIOR" TYPE RECEIVERS

2,000 Ohms

**Positively the Greatest Value for the Money in an Amateur Head Set**

FOR the beginner in wireless, whether he intends to continue as a professional, or to derive pleasure merely as an amateur, no better wireless set is available to-day than the Brandes "Superior."

Light and rigid in construction, it utilizes materials which will give the best service under both ordinary and trying conditions.

The case is of aluminum. Interior parts nickel-plated and highly polished. Caps of hard rubber.

Cores of annealed Norway iron, wound with No. 40 enameled copper wire to an exact number of turns, giving an approximate resistance of 2,000 ohms per set.

Green mercerized cord six feet in length. Attachable without opening receivers.

"Superior" Receivers are guaranteed to give full satisfaction or money refunded. We can refer you to thousands of users who attest to the substantial construction, handsome appearance and efficient service of this head set.

Weight, in use, 15½ ounces.

Price, complete with head band and cord, \$5.50 *6.00*

\* \* \* \*

### Tripled the Loudness and Doubled the Range

Victoria, B. C.

"About a year ago I bought a set of your Superior Receivers from your agent ———. They were the first set to come amongst the Victoria amateurs. We compared phones. The signals came in three times as loud and we could receive twice as far.

"I tested yours out with a set of ——— 5,000 ohm, which cost \$30. The signals came in sharper and louder on the Superior phones. Since I got them, four or five other amateurs have got them. They know a good thing when they see it. In all cases they have doubled their receiving distance."

S. E.

### Saving Up Until He Can Have Brandes

Rochester, N. Y.

"I am obliged to save up for my receivers so I cannot purchase them right away. I know quite a few amateurs and most all of them have Brandes Receivers, and those that don't have your receivers do not get as good results. Your receivers are esteemed to be the best by all the amateurs I know and you may look for my order soon."

I. N.



BRANDES "SUPERIOR" TYPE RECEIVERS

2,000 OHMS

Shipping Weight 2 lbs.

Price complete, \$5.50 *6.00*

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## A WORD AS TO PRICE

For years Brandes Head Sets have been guaranteed by their makers to be the best on the market at the prices for which they are sold. This guarantee has been made and maintained in serious earnest.

At the present time this is more than ever true. In spite of the great increase in the price of raw materials—a condition which has made it necessary for many manufacturers to reduce the manufacturing cost of their products—the quality of Brandes Receivers has never been changed or impaired in any way. We are using to-day the same high-class materials we have always used. And the same accurate, skilled workmanship is employed on every receiver.

In fact, as a natural result of our long experience, Brandes Receivers are really *bet er* to-day in every way.

## MADE BY WIRELESS SPECIALISTS.

Many radio receivers on the market to-day are made by houses which are primarily in *other lines of business*. Their receivers are perhaps by-products.

C. Brandes, Inc., are exclusive *wireless receiver specialists*. We have never made anything but wireless receivers. We do not intend to make anything else. It is our sole object and aim to produce the best receiver on the market. Our success is attested by the hundreds of letters we receive from professional operators and amateurs the country over.

## GUARANTEE

**E**VERY Brandes Head Set is sold subject to the approval of the purchaser. If, for any reason, you are not fully satisfied with your head set, if you think it does not fully come up to our guarantee that it is better than any other head set at the price, return it within ten days, and we will immediately refund the full purchase price.

We do not even ask any questions. We will take your word, if the head set does not meet with your approval. You don't have to prove anything to us.

This guarantee really amounts to a *free trial*. Because it gives you an opportunity to test our receivers against the ones you are now using, or against any other receivers you know of. It gives you a chance also to check up the advantages we claim for Brandes Receivers.



## PRICES

**Strictly net—cash with order—prices do not include transportation charges**

Brandes "Navy" Type Head Set—complete.....	\$14.00
Brandes "Transatlantic" Type Head Set—complete.....	10.00
Brandes "Superior" Type Head Set with German silver head band—complete .....	<del>5.50</del> 6.00
Brandes "Superior" Type Head Set with double leather covered head band—complete.....	<del>5.25</del>
Brandes Single "Superior" Type Set, consisting of single 1,000 ohm receiver, leather covered head band and six foot cord .....	3.00 3.50
Brandes Single "Superior" Type receiver, 1,000 ohms.....	<del>1.85</del> 2.25

## SUNDRIES

Headband for "Navy" or "Transatlantic" Receivers, hard rubber .....	\$1.75
Headband for "Superior" Receivers, German silver.....	1.75
Headband for "Superior" Receivers, double leather covered .....	1.50
Headband for Single "Superior" Set, leather covered.....	.75
Hard rubber cap for "Navy" Receivers.....	.25
Hard rubber cap for "Transatlantic" Receivers.....	.25
Hard rubber cap for "Superior" Receivers.....	.30
Diaphragms, each.....	.20
Six foot double cords—for 2 receivers.....	.60
Six foot single cord—for 1 receiver.....	.50

## HOW TO ORDER

Give full name of the head set you order. Write your own name plainly, and give your full post office address. If possible, designate route by which goods are to be shipped to you. If they are to be sent by parcel post, do not forget to include transportation charges with your remittance.

Remittances must be made by New York draft, post office or express money order. Do not send cash unless by registered mail. We assume no responsibility for losses in the mail.

The shipping weight of each set is shown under the picture, making it possible for you to estimate accurately the cost if sent by parcel post.

All parcel post shipments must be prepaid and must include insurance fee—3c for values up to \$5; 5c for values up to \$25. Goods sent by express should be sent collect. Express shipments up to the value of \$50 are all insured by the company against loss or damage, without extra charge.



## What Brandes Receivers Are Doing Every Day.

Extracts from a few of the hundreds of letters we are constantly receiving. Please note that these letters are all absolutely unsolicited.

### Got Him a "Raise"

New Orleans, La.

"I was operator on the S. S. 'Yora' at the time I purchased a pair of your Navy 'phones, and soon afterwards I received a \$10 raise from the Marconi Co. I have to give your phones credit for this raise, because I did better work and held the ship's long distance record running out of this port.

"There is not a question that your Navy type phones are more sensitive for long distance signals than any other make on the market that I have come in contact with, and I have been in the wireless game for about three years."

J. D. D.

### Sent S. O. S. Under Difficult Conditions

Cleveland, O.

"I am a commercial operator and have used this pair of 'phones (Brandes 'Superior') for three seasons instead of the ——— phones with which we are supplied here on the Great Lakes. I have several long distance records which I have made on the S. S. 'Octorara' and I attribute them to your 'phones, for otherwise our tuners are identical, and other ships should be able to do the same work.

"I had occasion to send the S. O. S. from the S. S. 'Lakeland' this November when she struck the rocks and started to fill. This happened during a severe gale and snow-storm and necessitated my working 300 miles but managed to do it. Could never have done it with ——— phones, as the land station was barely readable."

H. C. R.

### Brings Sound Right Into the Ear

Two Harbors, Minn.

"The sound in your receivers is right in your ear, while in other makes it seems in the head band somewhere."

L. S.

### Massachusetts Operator Gets Colon and Key West

Brookline, Mass.

"It gives me great pleasure to tell you of the most excellent work which I have done with the pair of Superior phones which I purchased from you some years ago. They are old, battered, rusty and show obvious signs of absolute neglect and hard use, but this Winter with a small aerial (80 ft. x 50 ft. high) and home-made instruments, I heard Colon, Panama, and could hear Key West every night. My sentiments are that Brandes phones can't be beat."

J. L. K., Jr.

### Can Hear With Receivers 1½ Inches from Ear

Toronto, Canada.

"The receivers arrived on Tuesday and I must say that I am very much pleased with them. The pictures in your catalog do not do them justice.

"Stations that I could scarcely hear before, now come in so loud that I can hear them with receivers about 1½ inches from my ears."

H. D.

### Brings In Signals 3,200 Miles Off

Pasadena, Calif.

"About a month ago a friend of mine and myself picked up two boats which had come around the Horn from New York. They reported 2,200 miles south of Magdalena Bay and Magdalena Bay is at least 1,000 miles south of me."

A. J. E.

### "Superior" Set Connects California with New York

New Rochelle, N. Y.

"I now have two pairs of your splendid 'Superior' wireless telephone receivers which have given me much pleasure. With them I have received such stations as Darien, Panama; Lake Park, Illinois; Bolinas, California, and both transatlantic stations in Germany.

"With phones lying on the table I can read Germany, and have heard Tuckerton 201 feet from the phones."

V. P. (a 16 year old amateur).

### A 2,200 Mile Overland Record

Greenville, Mich.

"The Navy phones which I have had some time are giving excellent service. I pick up Cape Cod every night (700 miles) and often Key West (1,500 miles) and the high frequency set at Colon (2,200 miles) which comes in very clear at times. As most of this is overland, I must give the phones credit for being wonders on distance work."

M. A. H.



### "Superior" Set Wins Over Newer Competitor

Alameda, Calif.

"There is a friend of mine who has a pair of ——— Receivers. We tested the two pairs out and mine (Brandes 'Superior,' 2,000 ohms) worked the best in spite of the fact that mine were the oldest."

G. B.

### Hears Signals Ten Feet from Receiver

Penacook, N. H.

"Last night I was down in the wireless room to get the time signals at ten o'clock and they came in loud, believe me. After, I tried a funny thing on Sayville. I hung up the receivers and went about ten feet away from them and I could hear the station. I think that that is some 'stunt.'"

H. W. B.

### Long Distance Records at Colgate University

Hamilton, N. Y.

"Since the installation of a wireless set here at Colgate University a year ago, they (Brandes 'Superior' Receivers) have been in regular service here. Last winter we heard 'N A X' (Colon) about twice a week all through the winter, on an aerial containing 1,000 feet of wire suspended from one of the buildings. On one occasion we picked up Port Bello, also in the Canal Zone, and consider that our best work.

"We are also using a pair of your Navy phones and Transatlantics, and they give complete satisfaction."

D. C. H.

### Used at Scientific School

Case School of Applied Science

Cleveland, O.

"We have been using a set of your 'Navy' type receivers and we have found them to give the best of satisfaction, in direct comparison with several other makes. I enclose an order for a second set of the same kind."

D. C. M.

### Old, But "On the Job."

Plainfield, N. J.

"I have had a pair of your Superior head phones for over three years, and the fellow from whom I bought them had them for quite a while. They are just as good now as when I bought them, and I compared them with a brand-new pair of phones the other day, and liked the tone of your receivers far better than the others."

A. H. M.

### Some "Superior" Records.

Santa Ana, Cal.

"Having given a pair of your 2,000-ohm Superior type wireless receivers a thorough test in comparison with others for the last year I take pleasure in saying that they surpass any other 'phones I ever saw and I have compared them with sets claimed to be the best made.

"With an aerial 85 feet high I have heard the following stations.  
"N P E" Sitka, Alaska 11:00 P. M.  
"N A X" Colon, Panama 1:00 P. M.  
"N A R" Key West, Fla. 2:50 P. M.

"Honolulu and a number of Canadian stations, the former 2,200 miles and the latter over 1,000 miles, come in very loud, and as my instruments are all my own make I lay my good success to the 'phones.'"

J. E. W.

### More Than Double His Range

Ithaca, N. Y.

"Your 'Navy' phones beat anything I have ever seen. Their handsome appearance, yet simple and rigid construction is certainly fine. Those ball and socket joints make them fit close but not tight. The work they do is something wonderful. Using a two slide tuner, fixed condenser, I have a range of 500 to 800 miles, where with other phones I have only done 200 or 300 miles. You can use my name to recommend your phones any time."

M. H.

### Prefers Brandes Receivers to the Kind His Company Supplies

S. S. "D—," off Sannak, Alaska.

"This is to let you know that your 'Superior' receivers purchased last September for my amateur station are giving perfect satisfaction. I am now using them in place of the receiver provided by the Commercial Company for which I am now operator, as they give better results."

H. I. B.

Memphis, Tenn.

### Static Interferences Reduced

"I have tested your receivers with others and find yours have a maximum amount of sensitiveness. With your receivers I hear N. A. A. every night, even at the hottest nights or any bad weather. I use a three slide tuner, silicon detector, fixed condenser and 2,000-ohm phones. They come in very clear. On Sunday night we hooked up three sets of phones and also heard N. A. A. The Brandes phones gave the most musical note and the clearest tone. Static interferences are reduced with your phones."

L. T.

### Weak Signals vs. Weak Noises

"I am well pleased with the 'Superior' phones which I bought from you a couple of weeks ago. It was very fair of you to allow me to try them and return if not perfectly satisfied with them; and you surely could not make such a promise if they were not as represented. They bring in the weak signals, where other phones simply bring in weak noises."

E. L. C.

### "Superiors" Better than a \$10 Set

Arlington Heights, Mass.

"My Brandes 'Superior' 2,000-ohm headset gives better results on the same set than a 3,000-ohm \$10 set."

C. A. P.

