

# RADIO

MODERN RADIO SETS  
ACCESSORIES KITS AND PARTS



for

1929

CONFIDENTIAL  
WHOLESALE  
PRICES

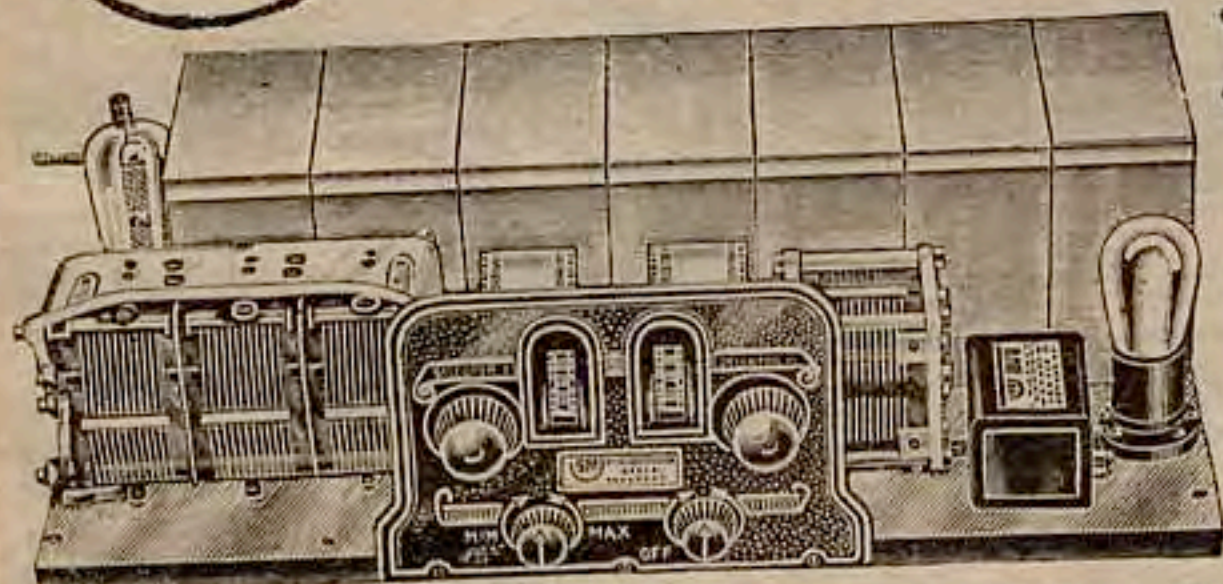


**ALLIED RADIO  
CORPORATION**

711 W. LAKE ST. — CHICAGO ILL.

**SM**

# THE 1929 SCREEN GRID LABORATORY SUPER HETERODYNE



## 5 Screen Grid R.F. Stages with Tremendous Power

No. 8882  
List Price  
\$95.20

Your Price  
**\$55<sup>98</sup>**

**T**HE 1929 Screen Grid Nine Tube Laboratory Receiver is a nine tube superheterodyne, having only two tuning controls for a total of five stages of R.F. amplification! It is an ultra sensitive superheterodyne giving positive 10 K.C. selectivity, and usually gives 2,000 to 3,000 mile regular reception range and marvelous tone. (These are manufacturers' statements.)

The circuit employs one untuned stage of short wave R.F. amplification, followed by two stages of tuned R.F. amplification, all three tuned by a super-accurate three gang condenser controlled by one vernier drum dial. This amplifier is followed by a screen grid first detector tube, an oscillator, tuned by the second vernier drum dial and a single condenser, two stages of sharply tuned 65 K.C. intermediate amplification, a second de-

tor and one audio stage using the new Clough audio system. The tuned R.F., oscillator, both detectors and I.F. amplifier stages are shielded in individual copper cans which are assembled upon the S-M 701 Universal steel chassis, and the whole set is doubly shielded by the S-M 700 Shielding Cabinet when used.

### 10 K. C. SELECTIVITY

The sensitivity and selectivity of the three short wave screen grid R.F. amplifier stages alone is great enough to provide better results than are had with the average T.R.F. receivers, yet they only precede a special screen grid super to boost its sensitivity, insure positive 10 K.C. selectivity, and cut out harmonics!

As a result of this combination of short wave R.F. amplification and ultra-efficient 65 K.C. intermediate amplification, the 1929 Laboratory Receiver is the most sensitive and selective superheterodyne that can be built, yet its parts cost but \$95.20.

### A Beautiful Receiver

The appearance of the set, with its attractive brass control panel escutcheon, and when housed in the S-M 700 cabinet is rich and distinguished in the extreme, while the whole set is but 21½ in. long, 10 in. deep and 7¼ in. high! It has the compactness and efficiency of the thoroughly engineered precision radio receiver that it is.

The set has but one stage of audio, and is intended for the discriminating buyer who, content with only the best, will use it with a 210 or 250 power pack. The S-M type 681-250 Unipac, for one 210 or 250 tubes, or the ultra fine 681-210 push-pull Unipac for two 210 or two 250 tubes, is the ideal power

### LIST OF PARTS

1—S-M 701 Universal chassis.....	\$ 3.00
1—S-M 809 control escutcheon.....	2.75
1—S-M 806L drum dial.....	2.50
1—S-M 806R drum dial.....	2.50
1—S-M 320R .00035 mfd.....	4.00
1—S-M 323 .00035 mfd. 3-gang cond. ....	13.50
7—S-M 638 stage shields.....	10.50
3—S-M 132B R.F. trans.....	3.75
1—S-M 132C oscillator .....	1.25
1—S-M 255 A.F. trans.....	6.00
3—S-M 210 long wave trans.....	18.00
4—S-M 512 sockets .....	2.40
8—S-M 511 sockets .....	4.00
1—S-M 275 choke .....	.90
1—S-M 708 connection cable.....	1.75
2—S-M 818 hook-up wire.....	1.00
2—Yaxley 53,000, 3,000 ohm mid-get pot .....	2.50
1—Yaxley 500 switch.....	.40
2—Yaxley 420 tipjacks.....	.25
6—Carter RU10 10-ohm res.....	1.50
1—Carter A3 3-ohm res.....	.50
1—Carter H½ ½ ohm res.....	.25
1—Durham 150,000 ohms res., with leads .....	.50
3—Potter 104, 1 mfd.....	3.00
7—Sprague ¼ mfd. midget cond. ....	5.25
1—Polymet .00015 grid cond.....	.50
1—Polymet .002 condenser.....	.40
1—Polymet 2 meg. grid leak.....	.50
1—Naald 481XS socket.....	.65
2—Moulded binding posts.....	.20
1—Set hardware .....	1.00

**\$95.20**

output stage and B supply for the Laboratory Receiver, combined in one unit.

The receiver will operate a loud speaker without the power amplifier, but this is not conducive to the fine, full tone, distance, and power it will give with the power pack.

All parts for the 1929 Nine Tube Laboratory Receiver are of standard reputable manufacture, and their high quality is one of the best recommendations for the set itself—a set so fine however, as to require no other recommendation than a single evening's tuning of it.

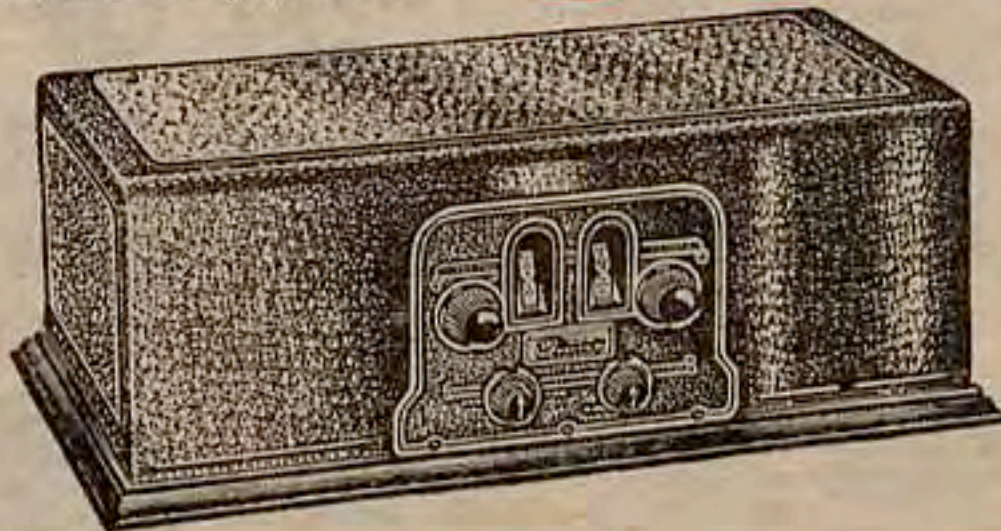
### Ideal for Power Amplifiers

Accessories required are six UX222 (CX322) tubes, two UX201A (CX301A) tubes and one UX112A (CX312A) tube. Any six volt A power unit, and an S-M 670B—or 675 ABC power unit if no power amplifier is used. The combined power amplifier and B power units recommended especially are the S-M 681-250 Unipac or the 681-210 push-pull Unipac, both single stage amplifiers for UX210 or UX250 super-power tubes.

1929 Screen - Grid Laboratory Model Superheterodyne—complete kit less tubes. Wt., 45 lbs.

No. 8882 **\$55<sup>98</sup>**  
Net

List Price, \$95.20



The Superheterodyne that made them all take notice! In the history of super receivers none has drawn more attention of custom set builders than the S-M-1929 Silver Lab. Super. In performance, 10 K.C. selectivity, range of reception it outclasses by far any preceding super McMurdo Silver has ever designed. The latest Screen Grid shielded feature give a tremendous amplification per stage. There is a lack of bothersome harmonics. THIS IS THE ULTIMATE RECEIVER CONSTRUCTION.

No. 1088 — S-M 700 Shielding Cabinet for the 1929 Super. Wt., 17 lbs. List \$9.25 ... **\$5<sup>44</sup>** Net

## The 1929 S-M Feature Super

# HAMMARLUND ROBERTS HiQ-29 JR. New Shield Grid Model A.C. and D.C.

Tremendous amplification is obtained in the new HiQ-29 Jr. by virtue of two stages shield grid radio frequency amplification. The weakest incoming signal is amplified tremendously by the shield grid tubes resulting in powerful, selective reception of distant stations.

## Single Control—Shielded

The new Hammarlund Drum Dial with illuminating feature and gracefully formed escutcheon plate gives the panel an exceedingly attractive appearance. Only one single tuning control. The screen grid stages are fully and completely shielded for maximum efficiency. Non-critical, stable operation.

### HiQ-29 Jr. Foundation Unit

Contains drilled and engraved Westinghouse panel, two complete shields, drilled steel chassis, shafts, coupling condensers, resistor mounts and all essential wire and hardware.

No. 2701. List \$14.00. YOUR PRICE .....

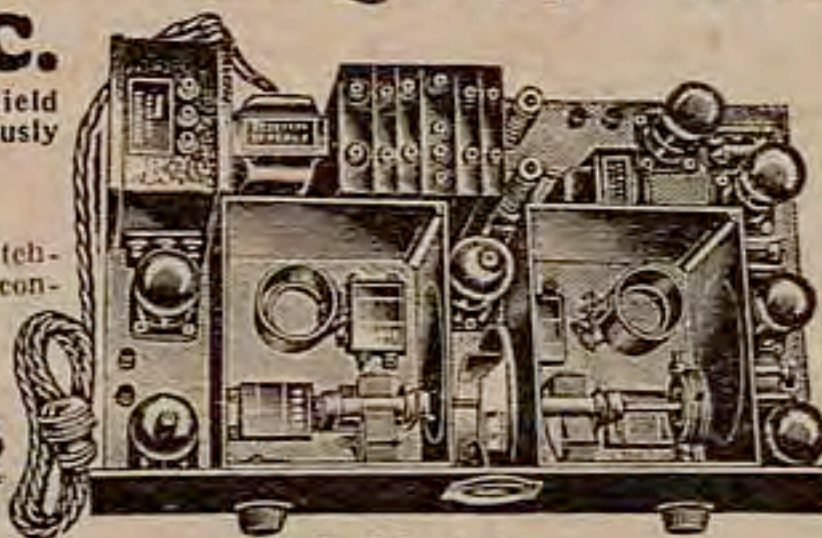
### A. C. Model

COMPLETE PARTS FOR THE HAMMARLUND ROBERTS JR.  
A. C. MODEL

Two Hammarlund .00035 midline condensers, two Hammarlund SGT-17 shield grid coils, one Hammarlund RFC 85 R.F. choke, one Hammarlund drum dial, seven Benjamin 9040 sockets, one Sangamo .0001 condenser, one Carter 3000 ohm tapered volume control, six Parvolt .5 by pass condensers, one Parvolt 3. by pass condensers, one Parvolt 1. filter condenser, one Parvolt 2. filter condenser, two Parvolt 4. filter condensers, one Parvolt 2. filter condenser, two resistors .25, one resistor .1, one 200,000 ohm resistor one watt, one 50,000 ohm resistor one watt, one Thordarson R 171 Compact, one Thordarson R 196 choke, one Thordarson 2610 filament transformer, one Electrad HiQ-29 resistor, one pr. Yaxley insulated phone tip jacks, two Eby binding posts, one HiQ-29 foundation unit.

No. 8783 Total List \$103.95. YOUR PRICE.....

**\$8<sup>23</sup>**



### D. C. Model

HiQ-29 FOR BATTERY OPERATION. COMPLETE LIST OF PARTS:

Two Hammarlund .00035 midline condensers, two Hammarlund SGT-17 shield grid coils, one Hammarlund RFC-85 choke, one Hammarlund drum dial, six Benjamin 9040 sockets, one Sangamo .001 condenser, one Carter 3000 ohm tapered volume control, one Carter No. 2 battery switch, four Parvolt .5 by pass condensers, two .25 resistors, one .1 resistor, two 10,000 ohm one watt resistors, one 50,000 ohm one watt resistor, one Yaxley type 660 cable connector, one pr. Yaxley insulated tip jacks, two Eby binding posts, one HiQ-29 Jr. Foundation Unit.

No. 8784. Total List, \$54.35. YOUR PRICE .....

**\$31<sup>96</sup>**

## Hammarlund Master HiQ-29

The HiQ-29 presents a new design and increased efficiency of the tremendously popular HiQ Six. Two circuits, designed for storage battery or A.C. operation.

### Completely Shielded

The radio frequency circuit is stage shielded. The design of the assembly is such that the R.F. tubes themselves are individually electro-statically shielded from the tuning units and inductances. Greatest efficiency is obtained with tremendous radio frequency amplification.

### New Illuminated Drum Dials

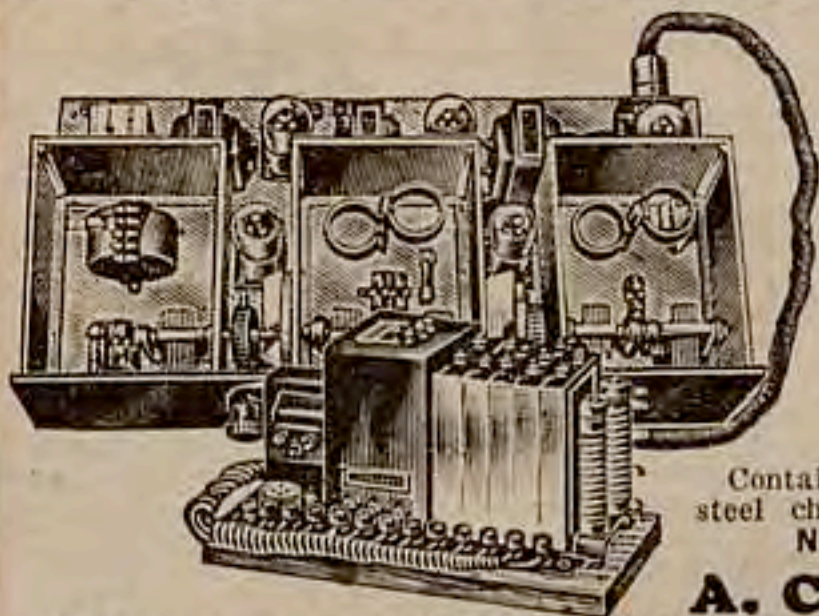
Incorporates the latest Hammarlund illuminated tuning control features. The receiver is extremely easy to assemble, furnished with foundation unit and steel chassis.

### HiQ-29 Master Foundation Unit

Contains drilled and engraved panel, three complete aluminum shields, drilled steel chassis, shafts, binding posts, strips and all essential hardware and wire.

No. 2702. List \$16.50. YOUR PRICE .....

**\$9<sup>70</sup>**



### A. C. MODEL

COMPLETE PARTS FOR BUILDING THE A.C. MASTER HiQ-29 FOR ELECTRIC OPERATION: Five Hammarlund .00035 condensers, one Hammarlund HiQ-29 coil set, two Hammarlund drum dials, three Hammarlund RFC-85 R.F. chokes, six Benjamin 9040 sockets, one Sangamo .00025 condenser, one Sangamo .001 condenser, one Carter No. 11 Hi-Pot, two Thordarson R 300 transformers, one Thordarson R 196 choke, one Thordarson R 171 compact, one Thordarson 2610 filament transformer, six Parvolt .5 by pass condensers, one Parvolt 4. by pass condenser, one Parvolt 3. by pass condenser, one Parvolt 1. filter condenser, one Parvolt 2. filter condenser, one Parvolt 4 filter condenser, one Parvolt 2. filter condenser, one 1 1/2 meg. resistor, two 1/4 meg. resistors, one Yaxley 612 cable connector, one pair Yaxley insulated tip jacks, one Electrad HiQ-29 resistor, two Eby binding posts, one HiQ Master Foundation Unit.

No. 8785 Total List \$151.80. YOUR PRICE.....

**\$89<sup>26</sup>**

### D. C. MODEL

FOR STORAGE BATTERY OPERATION. Five Hammarlund .00035 midline condensers, one Hammarlund HiQ-29 coil set, two Hammarlund drum dials, three Hammarlund RFC-85 R.F. chokes, five Benjamin 9040 sockets, one Sangamo .00025 condensers, one Sangamo .001 condenser, one Carter No. 115 Hi-Pot, two Thordarson R 300 transformer, four Parvolt 5 by pass condensers, one 1 1/2 meg. resistor, one Yaxley 660 cable connector, one pair Yaxley insulated tip jacks, two 1A amperites, one 112 amperite, two Eby binding posts, one HiQ-29 Master Foundation Unit.

No. 8786. Total List \$99.50. Your Price.....

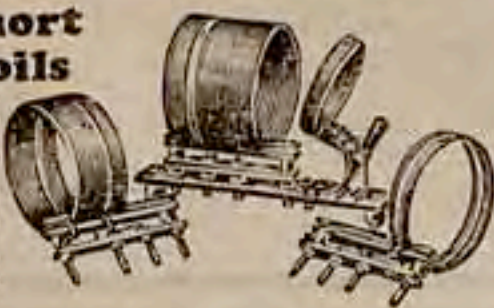
**\$58<sup>50</sup>**

### Hammarlund Coils

No. 2703. SGT-17. Set of two coils for shield grid tubes. List per set \$5.00. NET **\$2.94**  
No. 2704. HiQ-29 Coil Set. List \$8.00. NET **\$4.70**

### Hammarlund Short Wave Plug-in Coils

SWT-3 coil set covers short wave range of frequencies from 15 to 107 meters. Flexible ample overlap between the coils making tuning very smooth over the whole short wave range.



Coils are built around the special space wound coil material which sets a new standard for low resistance at high frequencies. Coils tuned with .00014 condenser.

No. 2705. SWT-3 set of three coils with base. List \$10.00. NET **\$5<sup>88</sup>**

### Plug-in Short Wave Inductances

Short wave inductors corresponding to the secondary winding of the short wave tuning coils. For use in sets employing a stage of radio frequency amplification and in sets using a stage with screen grid tube. Tuned with .00014 condenser. Type SWT-3 with base and inductors covering range from 15 to 107 meters.

No. 2706. List \$6.00. NET **\$3<sup>53</sup>**

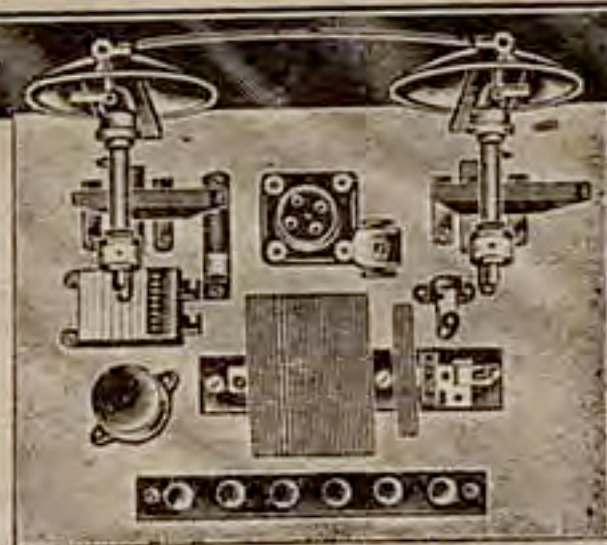
See Amateur's Short Wave section for additional Hammarlund Short Wave and Transmitting apparatus.

### Hammarlund Short Wave Receiver-Converter

A flexible short wave receiver, adaptable either to short wave reception with head-phones or as a short wave converter for plugging into the detector stage of any standard receiver.

### Converts Any Set for Short Wave Reception

By simply plugging the Hammarlund Short Wave Converter into the detector socket of any radio receiver reception of the lower wave lengths may be had and as no changes in wiring are necessary broadcast reception with the receiver may be had at will. As a converter for use with radio receivers nothing else is required. For use as a short wave receiver it is advisable to add a stage or two of audio amplification.



### An Entirely New Field of Radio Reception

Many of the most powerful broadcasting stations transmit on short waves simultaneously with their regular broadcast programs. The short wave programs are often easily picked up from stations thousands of miles away when interference makes it impossible to receive the regular program on the station's broadcast wave band. Many foreign and European stations have adopted short waves and exceptional records have been made in long distance reception.

### Complete List of Parts

One Hammarlund short wave-coil set SWT-3, two Hammarlund .00014 midline condensers, one Hammarlund RFC-250 R.F. choke, one Benjamin 9040 socket, one grid leak mount, one 3 meg. grid leak, one 1A amperite, one 7x14 panel, one socket plug adapter, two National type E dials, one Parvolt .5 by pass condenser, six Eby binding posts, one binding post strip, one 9x10 baseboard.

No. 8787. Total List \$35.00. YOUR PRICE.....

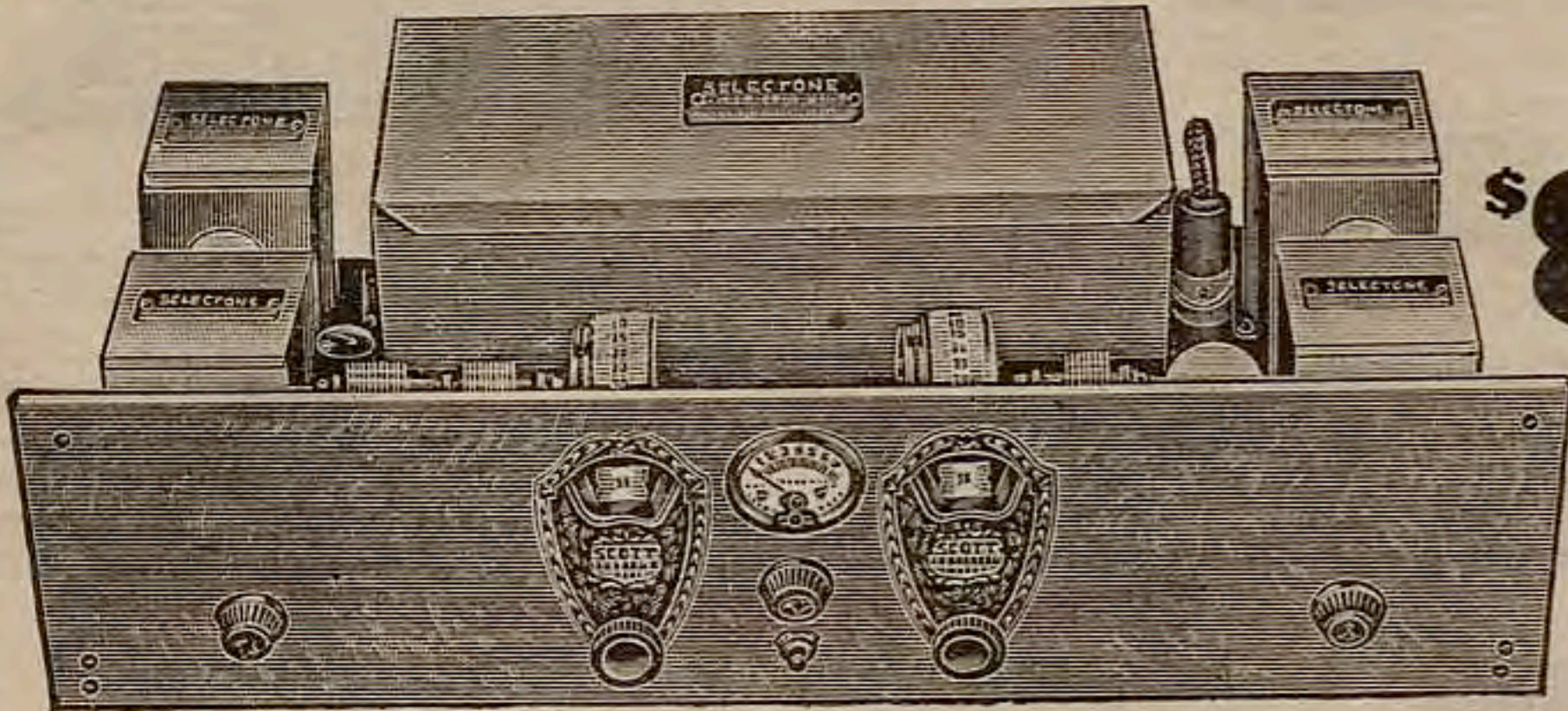
**\$20<sup>50</sup>**

# WORLD'S RECORD SUPER NINE

Scott's New Shielded Grid Sensation

YOUR PRICE

**\$81<sup>14</sup>**



No. 8757

List Price  
**\$138<sup>00</sup>**

## Scott Challenges The World

THE manufacturer of this kit is the same as the old World's Record Super Eight and the World's Record Super Ten. They issue a challenge to the world for distance, selectivity, tone quality and volume in the production of the Scott Shield Grid Nine. The manufacturer has tested this kit of parts which are easily assembled and has found that shielding not only gives much greater selectivity but also makes possible a tremendous gain per stage that is not possible with receivers which are not shielded. This set uses three 222 screen grid tubes. In this super-heterodyne these tubes give an unusually large gain per stage, bringing in more distant stations with greater volume and better tone quality.

## 250 Power Amplification

In the audio end of the receiver there is used a 112A tube with a 250 power tube giving this kit a tremendous "kick" with great volume and a resultant real tone quality. The transformers used are the Selectone type which are large and permit fine amplification.

## Assembled In Four Hours

This set is easier to assemble than most super-heterodynes. The entire kit comes to you complete with every part that should be in it packed in. This kit is supplied directly from the manufacturer and is factory sealed. The radio frequency coils plug in to the contacts. Each part is matched by the manufacturer. The set when built is claimed to be the most efficient receiver on the market.

## Illuminated Drum Control—Short Wave

Two illuminated drum tuning controls. One two gang and one single condenser. Many new stations and a number of older stations are now transmitting music on short wave and these can be tuned in on the Shielded Grid Nine by simply changing coils. This is also adaptable to a combination radio and phonograph. This receiver can be operated with either storage batteries or on one stage of audio on storage batteries or B batteries if A.C. current is not available. If 110 volt A.C. current is available, we list below the special B eliminator and the last stage of audio designed to go with this set. This will also eliminate all B batteries and furnish wonderful tone quality and power to the receiver.

Special plug in coils can be supplied (listed below) which will enable you to tune in for SHORT WAVE reception as low as 30 METERS.

## List of Parts

Following is a list of parts for the Scott Shielded Grid Nine which comes completely packed in factory sealed kit.

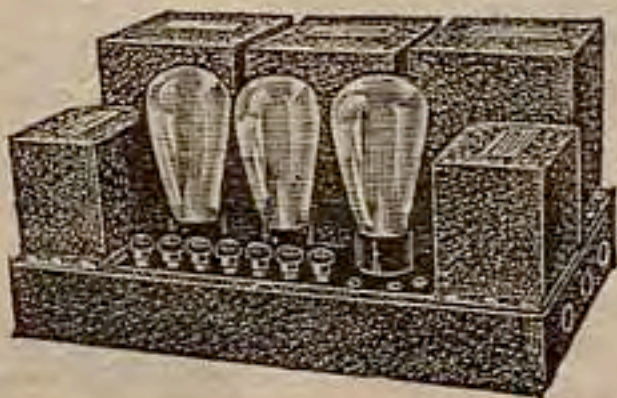
- |   |   |
|---|---|
| 1—Front Panel.                                  | 1—Selectone Transformer No. 620 (R.F. 200-550).       |
| 1—Sub Panel.                                    | 1—Selectone Transformer No. 610 (Oscillator 200-550). |
| 1—Selectone Variable 2-Gang Cond. No. 650.      | 1—Pr. Brackets.                                       |
| 1—Selectone Variable Cond. No. 660.             | 1—Selectone Rheostat 15 ohm.                          |
| 2—Selectone Variable Cond. No. 670.             | 1—Fixed Resistor, 4 ohm.                              |
| 2—Illuminated Drum Dials.                       | 1—Fixed Resistor, 2 ohm.                              |
| 1—Selectone Audio Transformer No. 640.          | 1—Power Switch.                                       |
| 1—Selectone Screen Grid Amplifier Unit No. 600. | 1—Fixed Cond., .00025 with clips.                     |
| 3—Selectone Tube Shields No. 680.               | 1—Grid Leak, 3 meg.                                   |
| 1—Selectone Transformer No. 630 (Ant. 200-550). | 1—Voltmeter.  |
|   | 1—Connecting Cable and Plug.                          |
|   | 8—Binding Posts.                                      |
|   | Wire, Screws, Lugs, Nuts, etc.                        |

No. 8757. Scott Shielded Grid Nine factory sealed kit as listed herewith. Wt., 35 lbs. List Price, \$138.00 YOUR PRICE...

**\$81<sup>14</sup>**

## Scott Amplifier and Power Pack

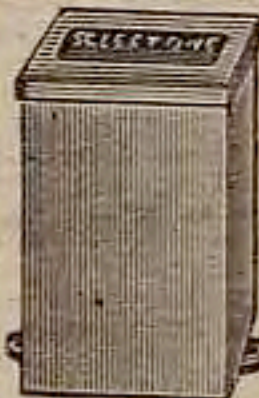
This is the special power pack necessary for the World's Record Super Nine for A.C. operation. All complete with cord and plug ready to operate the World's Record Super Nine direct from the A.C. line. Supplies A and B. Wt., 25 lbs.



No. 8750. List, \$83.00.  
YOUR PRICE .....

**\$48<sup>80</sup>**

## Selectone Shortwave Coils



No. 1951. Type 631 R.F. 70 to 210 Meters.

No. 1952. Type 632 R.F. 30 to 75 Meters.

No. 1953. Type 611 Osc. 70 to 210 Meters.

No. 1954. Type 612 Osc. 30 to 75 Meters.

List Price Each \$5.50.  
YOUR PRICE .....

**\$3<sup>24</sup>**

## Tube Shield

The tube shield used in the World's Record Super Nine is good for any screen grid tube.

No. 1956 List \$1.25 NET



**73c**

# National Radio's Latest

## National Screen Grid SHORT WAVE RECEIVER

COMPRISES several unique features. Uses the new 222 screen grid tube in the first R.F. stage, amplifying the incoming signal tremendously. The advance design of the national screen grid receiver makes shielding of the 222 tube and inductance unnecessary resulting in ease of construction and operation.

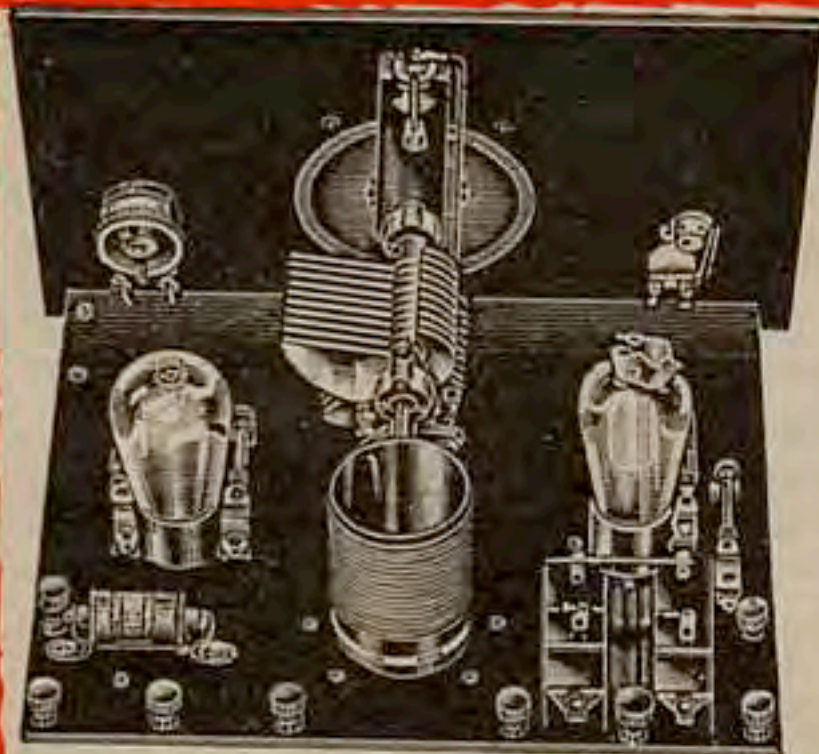
### 19 TO 100 METERS

By means of a series of four interchangeable coils, the national short wave kit will cover the full band of short wave frequencies from 15 to 100 meters.

There are a great many stations to be heard with a short wave receiver. With it distance takes an entirely new meaning. It is not uncommon to receive broadcasting from foreign stations located thousands of miles away with a 1, 2 or 3 tube short wave receiver. Static and fading is frequently entirely absent when reception on the regular broadcast band is exceedingly poor.

Aside from the thrill of possible foreign reception, reliable reception of such American stations as KDKA, WABC, WLW, WGY and many amateur broadcasts on short wave receivers can usually be depended upon. The broadcasting stations mentioned above transmit regular programs on short waves in conjunction with their usual broadcast programs. These can often be picked up easily on the lower wave lengths when interference makes reception practically impossible in the broadcast band.

At present many experiments are being conducted with television. Practically all of these television signals are transmitted under lower wave lengths. Anyone wishing to experiment with television reception requires an efficient short wave receiver. Wt. 20 lbs.



#### LIST OF PARTS:

- 1—National Foundation Unit.
- 1—National Type "E" Dial.
- 1—National .000125 Condenser.
- 1—Set National Short Wave Inductances.
- 1—National R.F. Choke Type 90.
- 1—National Impedance Type 10.
- 1—Aerovox .001 Condenser.

- 1—Aerovox .00025 Condenser.
- 2—Aerovox .5 Mfd. By-Pass Condensers.
- 1—Aerovox 1 Mfd. By-Pass Condenser.
- 1—Electrad Resistor Type "L".
- 2—Lynch Equalizers.
- 1—Grid Leak.
- 1—Filament Switch.
- 8—Eby Binding Posts.

TOTAL LIST

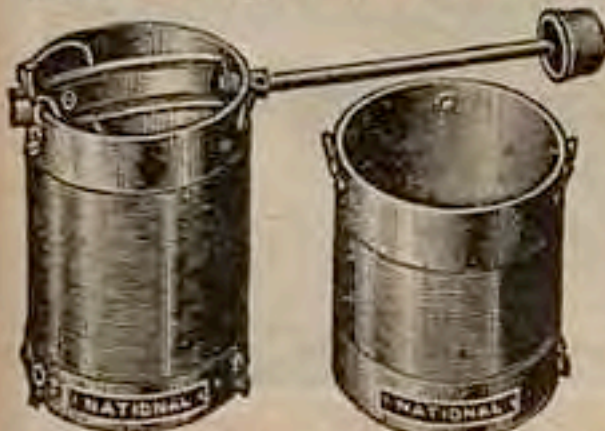
\$34.85

No. 8789

YOUR PRICE

**\$20<sup>49</sup>**

### Browning-Drake Coils



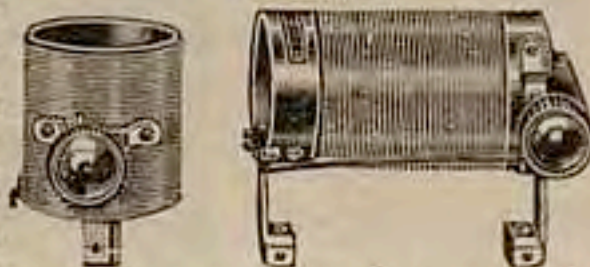
Designed by G. H. Browning and F. H. Drake of Harvard University. 90 percent efficient. Space wound inductances on threaded bakelite tubing. Wt. 3 lbs.

No. 3006. B.D. 1 and 2. List \$8.50.

YOUR PRICE .... **\$5.00**

### New National B.D. 2 in. Coils

Small size improved Browning-Drake inductances. A special high impedance primary transformer supplied with the UX222 coil.



No. 2751. Type B.D. 4 National Antenna coil. Wt. 6 oz. List \$1.50. **88c**

No. 2752. Type B.D. 5 National Antenna coil, with trimmer. Wt. 6 oz. List \$3.00. NET..... **\$1.76**

No. 2753. National regenerator transformer. Wt. 1 lb. List \$5.50. **\$3.23**

No. 2754. National type 222 regenerator transformer for shielded grid tubes. Wt. 1 lb. List \$5.50. **\$3.23**

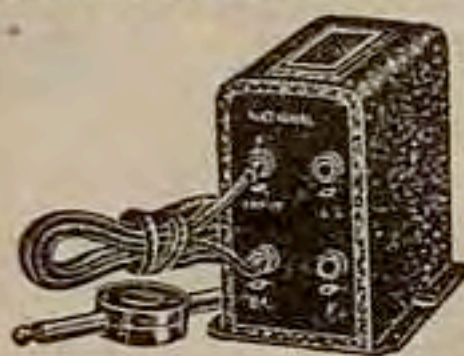
### National R. F. Choke

Designed to plug in standard grid leak mounting.

No. 2747. Type 90, especially suited for short wave work. Inductances 90 millihenries. Wt. 4 oz. List \$1.25. **73c**

No. 2756. Type 250, for all standard receivers. Inductances 250 millihenries. Wt. 4 oz. List \$1.60. **94c**

### National Tone Filter



Protects the loud speaker from high plate current drawn by power tubes. An impedance of the proper value through which the plate of the tube is supplied. Combined with a 2 Mfd. filter condenser in one case, will carry 35 Mils continuously without heating or saturating. Wt. 3 lbs. each.

No. 1945. List **\$3.82**

without cord \$6.50. NET

No. 1946. List **\$4.12**

with cord \$7.00. NET

Type 250 for the new UX-250 tube. Will carry as much as 100 Mils.

No. 1947. List **\$4.70**

without cord \$8.00. NET

No. 1948. List **\$5.00**

with cord \$8.50. NET

### National Scratch Filter

For use with electrical phonograph pick-ups to sub-due the amplification of needle scratch noises. Wt. 2 lbs.

No. 6537. List **\$3.23**

\$5.50. NET.....

### National Vernier and Drum Dials

#### TYPE "E" DIAL

Embodies smooth gearless mechanism without back lash and an artistic and distinctive panel escutcheon plate. Wt. 1 lb.

No. 1927. 0-100-0. List Each \$2.75 without illuminator. **YOUR PRICE \$1.62**

#### TYPE "F" DRUM DIAL

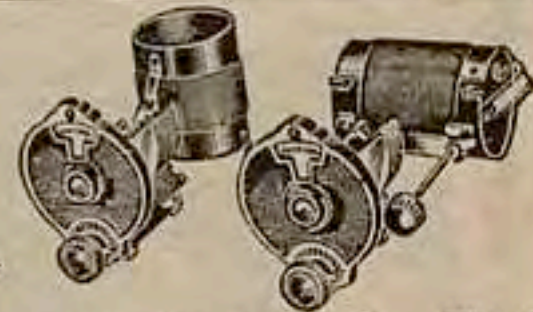
Embodies a velvet smooth operating mechanism. Automatic spring takeup and assures a positive drive at all times. Attractive panel escutcheon plate. Translucent scale permits perfect illumination. Wt. 1 lb.

No. 1928. List \$4.00 without illuminator. NET..... **\$2.35**

No. 1926. Type 28 illuminator. Wt. 4 oz. List 50c. NET..... **29c**

### National Tuning Units

For the Two Dial Official Browning-Drake Receiver



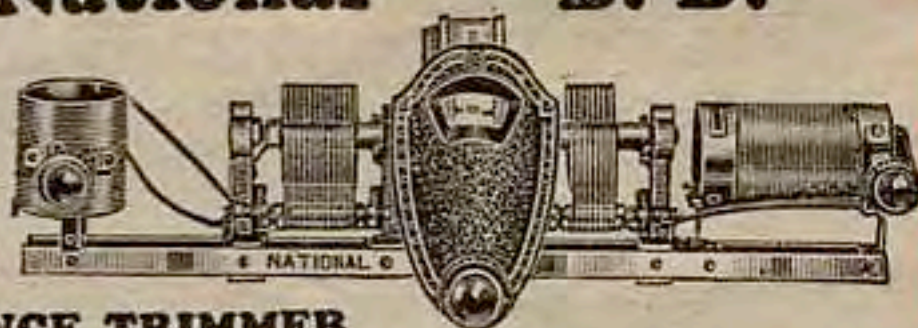
Highly efficient coil and condenser assembly. Wt. 6 lbs.

No. 3014. Type B.D. 1 "E" complete with type "C" dial. List \$10.75. **\$6.32**

No. 3015. Type B.D. 2 "E" complete with type "C" dial. List \$14.25. **\$8.38**

## Official Genuine National B. D. Tuning Units

Designed for single control. Embodies the new small size space wound coils mounted as a single unit with Equitone condensers driven by the new national velvet Vernier drum dial.



### INDUCTANCE TRIMMER

A new improved feature, a special inductance trimmer in the antenna circuit. Eliminates the necessity of a trimmer condenser and insures selective tuning of the antenna stage.

Mechanical and electrical efficiency is extremely high. Recommended for the construction of a standard Browning-Drake receiver, or as a high gain two tube tuner for use in connection with any power amplifier. Wt. 10 lbs. **\$14<sup>41</sup>**

No. 7088. List \$24.50. **YOUR PRICE** .....

### TYPE 222 FOR USE WITH SHIELDED GRID TUBE

Furnished with proper winding to permit the use of a UX 222 shielded grid tube. Embodies a special high impedance slot wound primary. Wt. 10 lbs. **\$14<sup>41</sup>**

No. 7089. List \$24.50. **YOUR PRICE** .....

# Amateurs' Short Wave Section

## Pilot Wasp Short Wave Kit

17 to 500 Meters

Amazing distance records are obtained on short waves. Many of the powerful broadcasting stations transmit their programs on short waves simultaneously with their regular broadcast transmission. Often stations far distant which are out of the range of the longer wave receivers can easily be picked up on the shorter wave lengths. Many report receiving European and other foreign stations with one to three tube short wave receivers.

### Simple Tuning

Has the new Pilot illuminated control and a set of five short wave plug in coils covering ranges from 17 to 30, 30 to 52, 48 to 105, 73 to 202, 200 to 500 meters. Each coil is equipped with an identifying color ring.

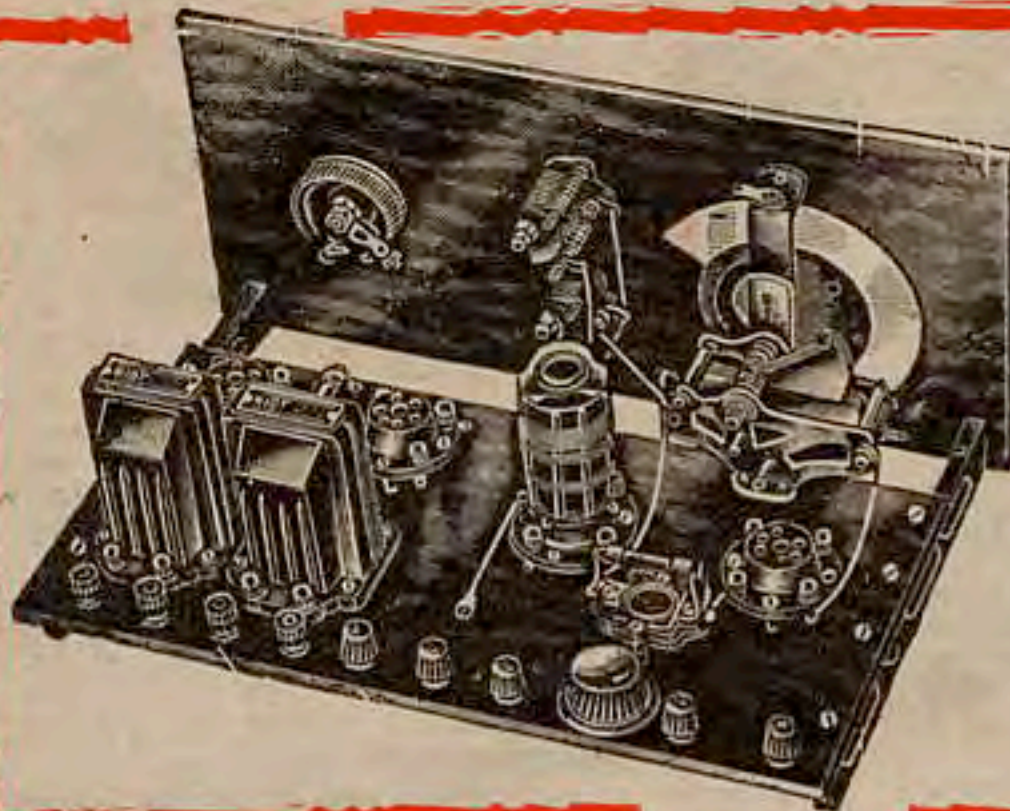
### Simple to Assemble and Wire

### Complete List of Parts:

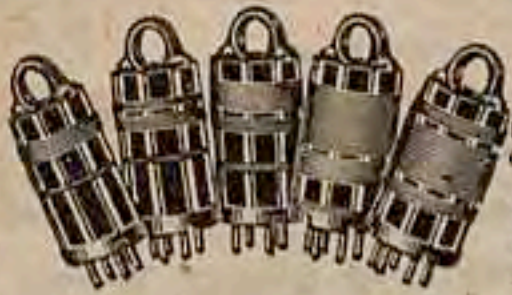
One Pilot 5 pl. midget cond., 10 binding posts, 2 Pilot 23 pl. midget cond., 2 1-inch brackets, 1 .002 fixed cond., 1 R. F. choke, 1 front panel, 1 sub panel, 4 sockets, 2 Pilot audio trans., 1 .1 megohm, and 1 10 megohm grid leak, 1 10 ohm rheostat, 1 Pilot illuminated dial, 1 8 pl. cond., 1 set short wave plug in coils, 2 pair clips, screws, wire, nuts and essential hardware. Wt. 15 lbs.

No. 8779.  
Total List, \$33.50.  
YOUR PRICE

**\$19<sup>70</sup>**



## Short Wave Plug-in Coils



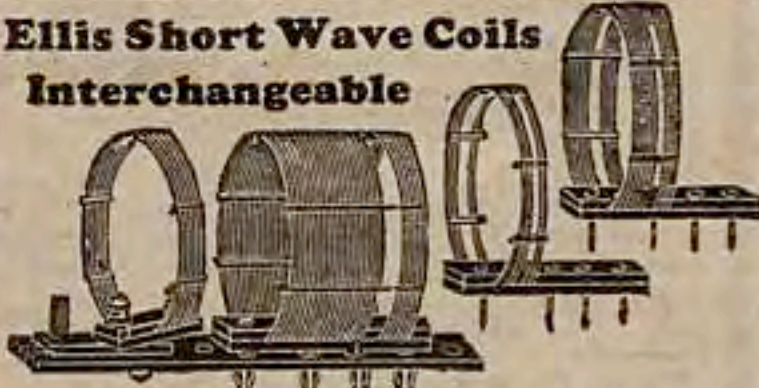
Set of five short wave plug-in inductances. Covers wave length range 15 to 500 meters. Space wound. Five prongs on base of coil. Fits any type UY five prong tube socket. Lowest losses. Coils are space wound on ribbed bakelite forms. Fitted with identifying color rings. Wt. 1 lb.

No. 2656. List set of five coils, \$8.50. YOUR PRICE... **\$4<sup>85</sup>**

### Coil Form Only

Ribbed form for winding space wound inductances. No. 2657. List, 90c. YOUR PRICE... **53c**

## Ellis Short Wave Coils Interchangeable



Precision made short wave interchangeable inductances. Set of three coils with mounting base covers range 15 to 120 meters.

Incorporates a unique feature in that the primary coil is adjustable in a slide and swivel making it possible to eliminate dead spots in tuning. The regenerative coils are spaced to eliminate detuning of the secondary. Wt. 1 lb. No. 2678. Complete set with base. List \$8.50. Your Price... **\$5<sup>00</sup>**

## Frost Radio Microphones

Designed for amateur transmission and general apparatus work. Are of the solid back carbon type and will faithfully reproduce voice and musical frequencies over the full range. Frost Microphones are nationally known for their excellent performance and superior design.

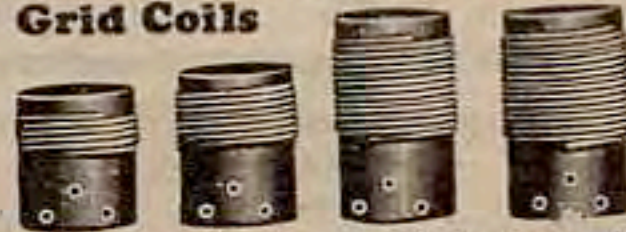
No. 2566. Hand type as illustrated, complete with cord. List \$6.00. Wt. 3 lbs. NET **\$3.53**

No. 2567. Desk microphone with cord. List \$8.75. Wt. 5 lbs. NET **\$5.14**

No. 2568. Pony Arm type for mounting on panel of transmitter or wall. Wt. 2 lbs. List \$4.50. NET... **\$2.65**



## National Short Wave Screen Grid Coils



Designed especially for short wave circuits using 222 screen grid tube. May be employed very efficiently in circuits not incorporating radio frequency amplification. Space wound on bakelite tubing. Wt. 8 oz. each.

No.	List	Net
2742 15 - 25 meter coil	\$2.50	\$1.47
2743 24 - 40 meter coil	2.50	1.47
2744 37.5- 65 meter coil	3.00	1.76
2745 64 -115 meter coil	3.00	1.76
2746 Set of four coils	10.00	5.88

### Short Wave Panels

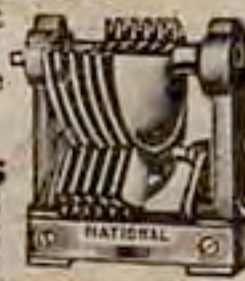
Panels drilled and equipped with sockets, grid leak, radio frequency choke and equalizer mountings for National Short Wave Kit. Wt. 3 lbs.

No. 2749. List \$7.25. YOUR PRICE... **\$4.26**

## National Short Wave SLF Equicycle Condenser

Designed especially for short wave receivers. SLF curve 270° rotation. Girder frame. Double spacing. Wt. 1 lb.

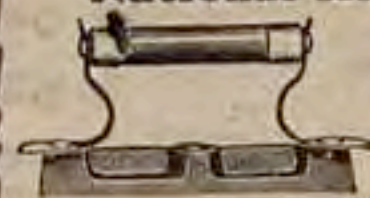
No.	List	NET
3195. .0001	\$4.50	\$2.65
3196. .000125	4.50	2.65
3197. .00015	4.00	2.35
3198. .00025	4.50	2.65



## National High Frequency Impedance

Designed for use in the grid circuit of UX 222 screen grid tube when employed for short wave radio frequency amplification. Makes possible the construction of a single control short wave receiver of high efficiency. Wt. 6 oz.

No. 2748. List without mounting, \$1.00. NET **59c**



## TRANSMITTING TUBES

UX 852. For amateur use. Normal output 75 watts. Standard UX base on filament end. Plate and grid leads through top and side of the tube. Filament 10 volts, 3.25 amps. Plate 2000 volts, 75 M. A. Safe power dissipation, 100 watts. Shipping wt. 2 lbs.

No. 280. List \$32.50. NET... **\$27.63**

UX 250. New 25 watt tube. Ideal for amateur transmission. Filament 7 1/2 volts, plate 450 to 500 volts, 55 M. A. Wt. 1 lb.

No. 281. List \$12.00. NET **\$8.23**

### 852 TUBE HOLDER

Holds the tube absolutely rigid. Connections for grid and plate leads. Provision for mounting grid and plate condensers. Short direct leads. Wt. 10 oz.

No. 282. List \$2.50. NET **\$1.75**



## National Precision Velvet Vernier Dial

Precision velvet vernier dial designed for laboratory apparatus where it is necessary to calibrate readings to one-tenth of a dial scale division. Ideal for the amateur who uses precise short wave apparatus.

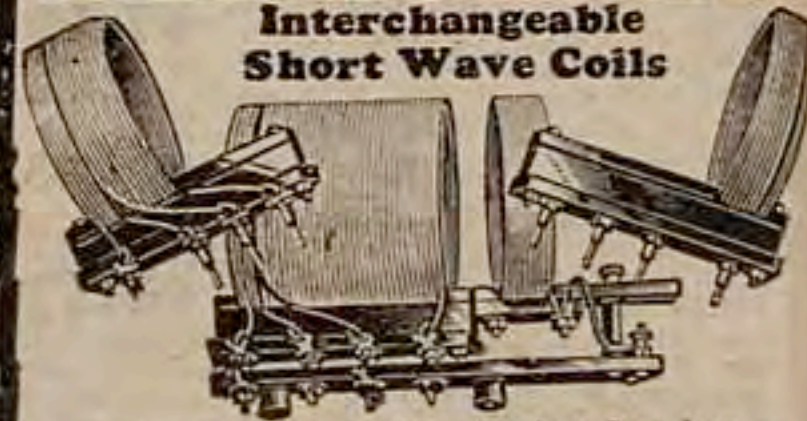
Scales are of solid German silver engraved in black. Vernier reduction 5 to 1 ratio. Wt. 10 oz.

No. 1922. 100-0.  
No. 1923. 150-0.  
No. 1924. 200-0.

List each with vernier scale, \$6.50. YOUR PRICE... **\$3.82**



## Interchangeable Short Wave Coils



A set of three highly efficient low loss interchangeable inductances complete with base. Covers wave length range 20 to 250 meters. Tunes with one .00014 or .00017 and one .00035 condenser.

Of space wound construction, the short wave inductances insure very efficient operation at the high frequencies without losses and extremely low D. C. resistance. Adjustable primary. Wt. 1 lb.

No. 1158. Complete set of three coils with base. YOUR PRICE... **\$3<sup>50</sup>**

### BROADCAST COIL

Designed to be interchangeable with short wave coil base. Coils wave length range 250 to 550 meters. Wt. 6 oz.

No. 1159. YOUR PRICE... **\$1.15**

## National Vernier Dial, Type E



Embodies a mechanism that is smooth in operation and insures a positive drive at all times. Very easy to install on any panel and with any condenser. Wt. 10 oz.

No. 1925. Scale 200-0. List \$2.75. NET **\$1.62**

No. 1926. Illuminator for type E Dial. List 50c. NET **29c**

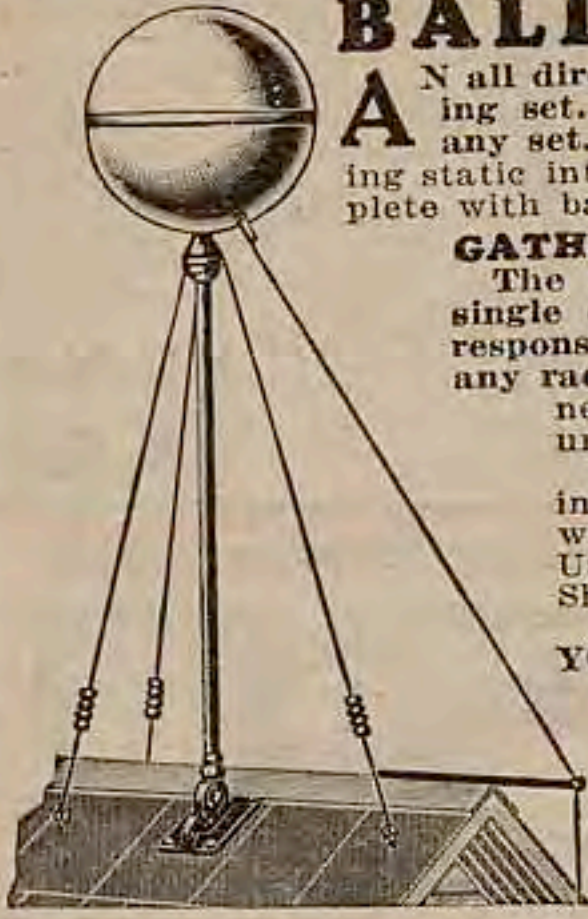
## NATIONAL RF CHOKE



Designed to plug in standard grid leak mounting. Efficient over wide range of frequencies as low as 15 meters. Inductance value 90 MH. D. C. resistance 350 ohms. Wt. 4 oz.

No. 2747. List without mounting, \$1.25. NET **73c**

# Aerial and Ground Accessories



## BALL ANTENNA EFFICIENT SELECTIVE

**A**n all directional selective antenna for any radio receiving set. Increases the receiving range of practically any set. It is selective and sharpens tuning minimizing static interference. A 10 in. aluminum alloy ball complete with bakelite insulator and condenser.

### GATHERS MORE ENERGY—GREATER RANGE

The Ball Antenna gathers far more energy than single or multi-strand wire aeriels and is therefore responsive to weaker signals increasing the range of any radio receiver. With this Ball Antenna, stations never before heard are received with good volume and absence of interference.

The ball sheds ice and snow. It is attractive in appearance and is not affected by heat and will not rust. No rod included. Uses one-half inch iron plate. Shipping weight, 4 lbs.

No. 2471. List \$7.50.  
**YOUR PRICE** .....

**\$2.75**

### BALL ACCESSORY KIT

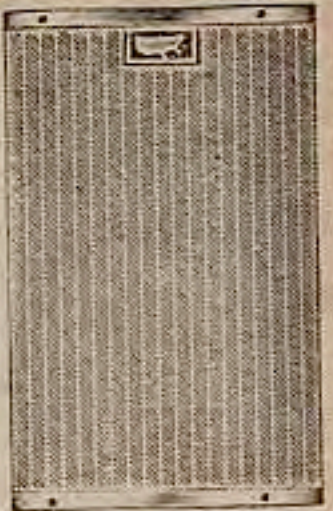
Consists of 50 ft. lead-in wire, 50 ft. copper guy wire, ground clamp, flexible window lead-in insulator, nail knobs, screw eyes and 10 ft. of pipe with base. Wt., 18 lbs.

No. 2473. **YOUR PRICE** .....

**\$2.15**

## Effarsee Antenna

An efficient inside aerial that can be hung up anywhere. Appears as a window curtain. Wires inside. Contains hundreds of feet of wire and necessary condensers, self-contained. Selective. Reduces static. Sensitive as an outside aerial. Wt., 5 lbs.



No. 2455. Retail 2.50  
**YOUR PRICE** .....

**\$1.47**

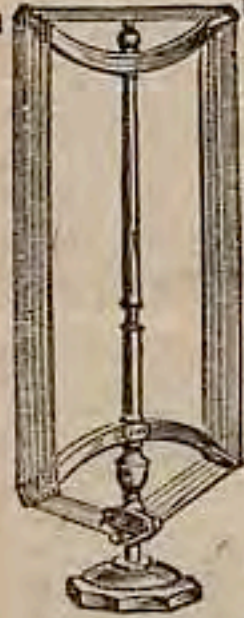
## Eagle Light Socket Aerial



A high grade well designed Light Socket Aerial Plug that makes use of the electric light wiring system of the house for an aerial. Draws no current. They reduce static materially and in many instances increase the range of your receiver. Highly recommended for use in congested districts, apartment buildings, etc., where more selectivity is required, than the outdoor antenna provides. Wt., 8 oz.

No. 2469. Retail, \$1.00.  
**YOUR PRICE** .....

**45c**



## Fiat Loops—Bank Wound

The Bank Wound design of this loop makes it particularly desirable for use on most Superheterodyne Receivers. Due to its efficient design, it will readily pick up the faintest signals, and deliver maximum signal energy to the receiver. Solid Walnut Frame in attractive natural finish. Turns on 7 in. radius. Center tapped, stands 30 in. high, 13 1/2 in. wide. Weight, 3 lbs.

No. 4409. Retail \$12.50.  
**YOUR PRICE** .....

**\$7.35**

## Qualitone Loops

A high grade carefully designed, enduringly constructed loop, with hand-rubbed solid walnut frame. By use of a special adjustment screw at the top of the center standard, the wires can always be kept tight; thus avoiding fluctuations in capacity. Center tapped. Metal parts, highly nickel plated. Wt., 5 lbs.



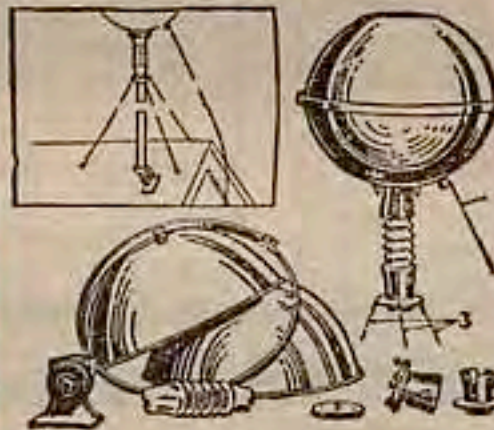
**Qualitone**  
No. 4407. As described above. Retail \$10.00.  
**YOUR PRICE** .....

**\$5.88**

**DeLuxe Model**  
No. 4408. As described above, except with fancy frame. Retail \$12.50  
**YOUR PRICE** .....

**\$7.35**

## BALL ANTENNA KIT



A high grade Ball Antenna Kit that minimizes static interference. Kit contains all necessary parts for instant easy assembly. They provide unusual aerial efficiency, and make a neat attractive installation. Just the thing for use in congested districts, and where more than one aerial is on the same roof. Wt., 5 lbs.

No. 2463. Retail \$5.00.  
**YOUR PRICE** .....

**\$2.94**

## Steinite Eliminator

For eliminating interference and sharpening the tuning of any radio receiver. Scientifically constructed, it greatly increases selectivity. May be used on any set with an aerial. Quickly and simply installed. If your set tunes broadly you need an interference eliminator



No. 6020. Retail \$1.00.  
**YOUR PRICE** .....

**59c**

## Muter Interference Eliminator



Increases selectivity and sharpens tuning of any radio receiver. Encased in black molded Bakelite. Only 3 1/2 in. in diameter. Enables you to tune out powerful local and nearby broadcasting stations, in order to tune in the distant stations. Corrects any set if

It tunes broadly. It will also reduce "static" caused by local electrical defects. Wt., 1 lb.  
No. 6021. Retail \$2.50.  
**YOUR PRICE** .....

**\$1.47**

## Window Lead-In



Fits between window and sill. Contact on each end. Wt., 4 oz.  
No. 2465. Retail 25c.  
**YOUR PRICE** .....

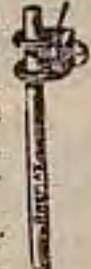
**7c**

No. 2465A. Extra long. Retail 45c.  
**YOUR PRICE** .....

**12c**

## Ground Rods Premax

A simple effective coppered steel ground rod that provides a permanent effective ground connection. Measures 3/8 in. in diameter, and 4 ft. long. Pointed for easy driving. Provided with adjustable clamp for ground lead. Wt., 2 lbs.



No. 2470.  
**YOUR PRICE** .....

**29c ea.**

## DeLuxe Umbrella Aerial Kit

A new design for efficient, permanent aerial installation. Here is what the Kit contains:

- 1 special umbrella insulator; 100 ft. 7-strand copper wire; 50 ft. lead in wire; 1 aluminum roof base; 1 approved lightning arrester; 1 ground clamp; 6 porcelain insulators; 3 porcelain nail knobs; 6 screw eyes; 4 roof base screws.

No. 2472  
**Your Price** .....

**\$2.75**

List \$5.00



The advantage and efficiency of the umbrella type aerial has been proven by its adoption by hundreds of amateurs.

The umbrella type aerial is non-directional. It gathers far more energy than does the customary single or multi strand aerial which is usually stretched from roof to roof, yet it takes less room, is more easily installed and is many times more satisfactory. The most complete and up-to-date aerial kit on the market. Selective and efficient. Wt., 5 lbs.

## Ground Clamp

A copper ground clamp. Positive contact. Wt., 4 oz.



No. 2462.  
**Your Price** EACH .....

**4c**

No. 2462A, DOZ. **42c**

## Ekko Ground Clamp

A perfect ground clamp. Assures clean contact. Wt., 8 oz.



No. 2464. Retail 25c.  
**YOUR PRICE** .....

**15c**

## BELL WIRE

Furnished in 50 ft. rolls per box. Cotton cover colored. No. 18 wire. Good quality and value. Wt., 1 lb.

No. 2458. Retail, 50 ft., each, 30c.  
**YOUR PRICE** .....

**18c**

## TWISTED LAMP CORD

Consists of flexible stranded size 18 copper wires, with rubber sleeve insulation, over which is a neat colored cotton braid.

No. 2456. Double twisted wire, 25 ft. **YOUR PRICE** ..

**48c**

No. 2457. 50 ft. **YOUR PRICE** .....

**75c**