

1937-8

UP-TO-DATE RADIO GUIDE . . .

Radio-

**Thos. Ballinger & Co. Ltd.**  
58-60 VICTORIA ST. WELLINGTON  
Telephone 43-070 (3 LINES)  Telegrams:  
"REGNILLAB"

REPLACEMENT PARTS

SERVICEMEN SUPPLIES

TESTING EQUIPMENT

TUBES—ACCESSORIES

AMATEUR EQUIPMENT

EXPERIMENTER'S PARTS

S. W. APPARATUS

SET-BUILDERS' KITS

# Thos. Ballinger & Co., Ltd.

58-60 Victoria Street

::

WELLINGTON

Telegrams: "Regnillab"

P.O. Box 324

WE have pleasure in presenting our Radio PRICE LIST for the season 1937-38. This Catalogue will reach many new clients, and it is our hope and endeavour to give them our very best service and attention. To our old friends, we extend our best wishes and look forward to their continued support.

New lines are constantly arriving, and we would appreciate your enquiries for any goods not shown therein.

## SERVICE

To our Town Clients, our Quality Goods, Efficient and Prompt Service, and Large Stocks are well known.

To our Country Clients we would draw attention to our Service, which stands for:

- (1) Prompt Despatch of Orders;
- (2) Where we are temporarily out of stock, or do not stock goods ordered, we save your time by endeavouring to procure for you;
- (3) If our Price List interests you, ask that your name be added to our Mailing List, when you will be advised of new lines as they arrive;
- (4) Advise us of your Radio Troubles—our Advice is Free.

We welcome suggestions for improvements in our Price List or Service.

## METHOD OF ORDERING

Please indicate clearly, Catalogue Number, Description, Quantity and Price; also state Method of Delivery, e.g., "Parcels Post," "Fragile Post," "Transport," etc.

## TERMS

### (Prices are Subject to Alteration Without Notice.)

Remit Cash with Order and kindly allow sufficient for postage—we will refund balance, if any.

No returns will be accepted after seven days. Freight to be Prepaid.

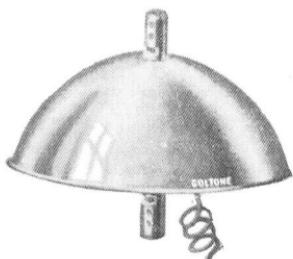
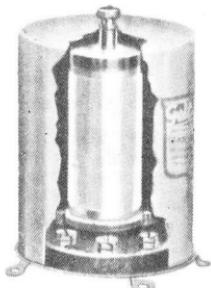
All valves are tested on expensive and reliable meters before despatch and are carefully packed. We cannot accept responsibility for damage after leaving our warehouse.

Business Hours—8 a.m. to 5 p.m. Saturdays—8 a.m. to noon.

All previous Catalogues cancelled.

Should there be lines you require which are not listed in this Catalogue we will welcome your enquiries and will forward you full particulars on request.

# AERIAL EQUIPMENT



## AERIAL EQUIPMENT

The "Golton Aerial System" shields your down lead from electrical interference and makes reception a pleasure. Sold complete with aerial and

## THE DOUBLE DOUBLET KIT

Comprising 110 feet of special weatherproof lead-in wire, matching transformer and crossover insulator. Ideal for dual wave and all wave receivers in areas troubled with electrical interference. Simple to install.

Cat. 1017 T ..... 45/-

## AERIAL WIRE

|  |     |
|--|-----|
| 1027T—7.029 bare copper aerial wire in 100ft. coils      | 3/6 |
| 1037T—7.036 bare copper aerial wire in 100ft. coils      | 5/- |
| 1047T—7.029 enamelled copper aerial wire in 100ft. coils | 5/6 |
| 1057T—7.029 tinned copper earth wire, per lb.            | 3/6 |
| 100ft. equals approx. 1½ lbs.                            |     |

Wire strainers ideal for keeping your stay-wire taut.  
Cat. 1067T ..... 1/3

Lashing eyes with Nuts.  
Cat. 1077T ..... 4d.

## AERIAL INSULATORS

To obtain the best results from your aerial it is of absolute importance that you insulate with good quality insulators.

receiver transformers for matching purposes and 50 feet of shielded lead-in wire.

Cat. 1007T ..... 35/-

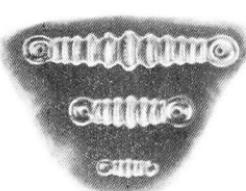
Cat. 1087S—Egg Insulators 1/- per doz.

Cat. 1097T—Shell Insulators 6d. each, 5/- per doz.



L.C.A. Crossover insulators for the R.C.A. All Wave Antenna System.

Cat. 1107T ..... 2/6



Pyrex Insulators. The best known and most popular insulator, used by New Zealand Government, Harbour Board and Shipping Companies. Pyrex means quality, efficiency and service. 3in. Broadcast type, strain 450 lbs.

Cat. 1117T ..... 1/6

Pyrex 7in. Amateur Transmitting Type—strain 1000 lbs.

Cat. 1127T ..... 13/6

Pyrex 12in. Transmitting Type—as used for Commercial Radio Stations.

Cat. 1137T ..... 32/6

Glass Insulators—similar in design to the Pyrex Broadcast Type, widely used and made of non-brittle glass.

Cat. 1147T ..... 6d. each, 5/9 doz.

Knox Porcelain Transmitting Insulators. A highly finished rod type insulator within the reach of every Amateur Transmitter.

Cat. 1157T 7in. ..... 2/-

Cat. 1167T 12in. ..... 3/-

Zepp Spreader Insulators. Another Knox product for the "Ham," glazed white, drilled and notched ready for installation.

Cat. 1177T ..... 2/-



Stand-off Insulators. Knox Stand-off Insulators, cadmium plated screw, is approximately 2½in. high and corrugated.

Cat. 1187T ..... 1/3



I.C.A. Beehive stand-off Insulators. Very efficient, and has many uses for the constructor and Amateur Transmitter.

Cat. 1197T ..... 1/6

Knox Miniature Stand-off Insulator, No. 404, the smallest insulator made. Height ½in. x ½in. x ½in.

Cat. 1207T ..... 6d.

Knox No. 403 Stand-off Insulator, 1in. high, base ½in. x 1½in.

Cat. 1217T ..... 8d.



Knox No. 402 Stand-off Insulator, 1½in. high, base 1in. x 1½in.

Cat. 1227T ..... 10d.



National Stand-off Insulators. These heavy Insolantite Stand-off Insulators combine electrical efficiency with strength and convenience. Two sizes available. Ideal for the Amateur Transmitter, Experimenter, for mounting Tank coils, etc.

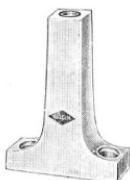
Cat. 1237T—GS-3  $\frac{2}{3}$  in. long,  $\frac{3}{4}$  in. dia. 4/-

Cat. 1247T—GS-4  $\frac{4}{5}$  in. long,  $\frac{3}{4}$  in. dia. 9/-



Cat. A1247N .... 3/6  
I.C.A. GIANT  
STAND-OFF

Insulator overall height 5 in., base  $3\frac{1}{2}$  in., made of Insolite and will withstand 10,000 volts. The ideal insulator for high voltage leads and general transmitting use.



Bulgin No. 45  
Stand-off Insulator. White porcelain and fitted with 6 BA nickel plated screws.

Cat. 1257T 10d.



Knox Galvanised screw eye type insulator, sometimes known as guide arms—keeps the leadin away from walls, spouting, etc. Obtainable in the following sizes: 3 in., 4 in., 12 in.

Cat. 1267T—3 in. .... 4d.  
Cat. 1277T—4 in. .... 6d.  
Cat. 1287T—12 in. .... 9d.

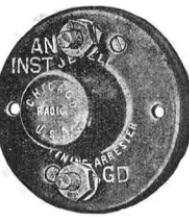
#### LIGHTNING ARRESTERS

The Fire Underwriters state that a suitable earthing device must be fitted to an outside aerial.

When purchasing a Lightning Arrestor be sure you are not "had" by inferior makes—which will not only spoil reception, but prove useless as far as protection is concerned.

Parkson Arresters. Weatherproof bakelite case.

Cat. 1297S ..... 1/-



Jewell Arrestor. Porcelain housing—carbon block type, efficient and safe.  
Cat. 1317T

2/6

"Cooke's" R73 Arrester. The Deluxe safety device—complete with single pole double throw switch and fuse. A good radio deserves the best protective device. Install a "Cooke's".

Cat. 1327T ..... 4/-

#### EARTH FITTINGS

The earthing of your radio set is just as important as a good aerial. Run the Earth lead as short as possible, with wire not less than 7.029 as required by the Fire Underwriters.

#### EARTH CLAMPS

Solid brass clamps, made in New Zealand and approved by the Public Works Department. To fit  $\frac{1}{2}$  in.,  $\frac{3}{4}$  in. and 1 in. water pipe.

Cat. 1337N— $\frac{1}{2}$  in. .... 5/- doz.  
Cat. 1347N— $\frac{3}{4}$  in. .... 6/- doz.  
Cat. 1357N—1 in. .... 6/6 doz.

#### ADJUSTABLE EARTH CLAMPS

These clamps can be adjusted to fit any size pipe up to 2 in.

Cat. 1367T ..... 3d.

#### LEAD-IN TUBES

9 in. Ebonite Lead-in Tubes, with

brass rod, terminals each. Can be purchased in either  $\frac{1}{2}$  in. or  $\frac{3}{8}$  in.

Cat. 1377S— $\frac{1}{2}$  in. ..... 8/6 doz.  
Cat. 1387S— $\frac{3}{8}$  in. ..... 8/6 doz.

#### PORECLAIN LEAD-IN TUBES

Elbow end 9 in. long—glazed white—very popular, as the lead-in can be lead through to the set without a break.

Cat. 1397S ..... 12/- doz.  
Straight type, 8 in. long 1 in. diameter.  
Cat. 1407T ..... 8/- doz.

#### KNOX FLEXIBLE LEAD-IN

A special window strap type lead-in.  
Cat. 1417T ..... 6d.

#### PYREX SPECIAL ENTERING BOWLS

Ideal for the transmitter and require no description as they are well known to the "Ham."  
Cat. 1427N

2/6



"Bulgin Universal self-adjusting low-loss lead-in insulators. This new device fits to wall and window-frames 1 in. to 5 in. thick. Suitable for all frequencies, 1,000 volt insulation.

Cat. A1427T ..... 3/-



# UNCHALLENGED

for both

# Value and Performance!

For many years Burgess Batteries have been supreme for power and endurance . . . . You get months and months of dependable service with a Burgess Battery that cannot be obtained from any other battery of similar size.

Burgess Batteries will improve the performance of your set out of all recognition, and they will still be serving you, long after their initial cost is forgotten.

# BURGESS

## RADIO BATTERIES

N.Z. Factory Representatives - SPEDDING LTD. - P.O. Box 462, Auckland

# BATTERIES

## BATTERIES



Wet "A" type Willard Batteries are made by the world's largest Storage Battery factory. They are unrivalled for quality, efficiency and service. Our

Service Station carries out 100% Willard service and we can thoroughly recommend "WILLARD" to those who require the very best.

## WILLARD 6-VOLT RADIO BATTERIES

|                    |          |  |
|--------------------|----------|--|
| Cat. 1437T—WT1-13  | 100 A.H. |  |
| Capacity           | £2/19/6  |  |
| Cat. 1447T—WT2-95  | 120 A.H. |  |
| Capacity           | £4/4/-   |  |
| Cat. A1447T—WS4-17 | 150 A.H. |  |
| Capacity           | £7/-/-   |  |
| Cat. B1447T—MCSG-3 | 40 A.H.  |  |
| Capacity           | £3/10/-  |  |

The above capacities are based in a 72-hour rate. Prices include acid and first charge.

## BURGESS-DRY "B" BATTERIES



Battery set owners cannot do better than to instal Burgess Batteries—they are noise free and reliable, used by leading scientific expeditions. This alone should convince.

|                      |                                |      |
|----------------------|--------------------------------|------|
| Cat. 1467T—Type 2156 | 221 volt block                 | 13/6 |
| Cat. 1497T—Type 2308 | 45 volt vertical standard duty | 18/6 |

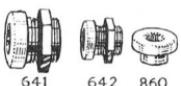
Cat. 1497T—Type 10308 45 volt vertical heavy duty 25/6

Cat. 1507T—Type 21308 45 volt vertical super heavy duty 28/-

Cat. 1517T—Type 2370 4½ volt vertical bias battery 3/6

(Note the new type connection on Burgess Batteries).

## BUSHES



In assorted colours—threaded with nuts.

Cat. 1527T—No. 641 ½ in. diam. 3d.

Cat. 1537T—No. 642 ½ in. diam. 2d.

Cat. 1547—No. 853 Galarings or insulated washers—in assorted colours. 1/- doz.

## H.F. BUZZERS

The R60 H.F. Buzzer has a high pitched note and is ideal for code practice. Crystallised finish. A Signal product.

Cat. R1547N 10/-

## Books

Riders' Trouble Shooters Manuals. These are known to all live Radio Servicemen the world over, and therefore require no comment. We always keep in stock the latest edition, together with a small number of the back volumes.

The latest volume to date is No. 7. Cat. 1557N 52/6 (No Sales Tax)

Also we have Rider's Auto-Radio Trouble Shooters' Manuals, Vols. Nos. 1 and 2. 18/6 each

Rider's Cathode Ray Tube at Work. An excellent publication for the Serviceman, who can look ahead and foresee the uses of the Cathode Ray Oscilloscope.

Cat. 1567N 15/-

Rider's Servicing Super Heis. Deals with the modern super hetero—should be read by all radio men.

Cat. 1577N 6/6

## Clips



We stock Mueller Electric Co. Universal Brand Battery Clips known to the trade generally—heavily plated—sold in four sizes.

Fee-pee type, No. 45, 1 ½ in. long.

Cat. 1587T 5d. each, 4/6 doz.

10 amp. type, No. 48B, slightly heavier than the Fee-pee.

Cat. 1597T 5d. each, 4/6 doz.

25 amp. type No. 24A,

Cat. 1607T 9d. each, 7/2 doz.

50 Amp. type No. 21A—largest size. Cat. 1617T 1/3 each, 12/7 doz.



Crocodile Clips. Grips well with a strong action.

Cat. 1627T 3d ea. 2/6 doz.

Fahnstock Clips. A very useful gadget to have around the den. Ideal for temporary hook-ups, transmitters, etc. Cat. 1637T 2d. each, 18/- gross

Control Grid Clips. Best quality, glass tube type.

Cat. 1627S 1/- doz.

Metal Tube type.

Cat. 162A7S 6/- doz.

## COIL FORMERS



Hammarlund XP53 coil formers need no introduction to the modern radio Fan and Amateur Transmitter. Please state number of pins required.

Cat. 1637N 2/-

Marquis Coil Formers. These can be obtained in various colours.

Cat. 1647T 1/6, coloured 1/9

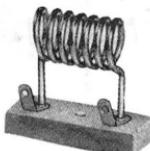
Formapex Tube. This material is of the highest quality, being used universally throughout the trade. 15 in. walls, yellow-natural finish.

Cat. 1667T—1in. 1/8 per ft.

Cat. 1667T—1½in. 2/- per ft.

Cat. 1677T—1½in. 2/2 per ft.

|                                |             |
|--------------------------------|-------------|
| Cat. 1687T—1 $\frac{1}{2}$ in. | 2/6 per ft. |
| Cat. 1697T—2in.                | 2/6 per ft. |
| Cat. 1707T—2 $\frac{1}{2}$ in. | 3/- per ft. |
| Cat. 1717T—3in.                | 3/6 per ft. |
| Cat. A1717T— $\frac{3}{4}$ in. | 1/5 per ft. |
| Cat. B1717T— $\frac{1}{2}$ in. | 1/6 per ft. |



## COILS

5 Metre Coils  
on an Isolantite  
base, baseboard  
mounting.

Cat. 1727N  
2/6

Hammarlund Beat Oscillator Coils for  
Single Signal Super.

Cat. 1737N 23/-

## CANS

Polished Oil Cans, aluminium, 6 $\frac{1}{2}$ x2.  
Cat. 1747T 1/3  
Valve Cans, aluminum, three piece.  
Cat. 1757T 1/3

## CONDENSERS

We stock good condensers, as a  
cheap one costs you more money in  
the long run than the initial outlay for  
one of reputable make.

Curtis Dry Electrolytic Condensers,  
8mfd., 630 volt peak, cardboard type,  
fully guaranteed.

Cat. 1767T 4/9

Magnavox 8mfd. Wet Electrolytic  
Condensers, 500 volt working. Supplied  
with insulating washers.

Cat. 177AT 3/3

Duco 8mfd. Wet Electrolytic Condensers. A new type just released by the Dumont condenser manufacturers.

Cat. 1777T 4/-

Sprague 8mfd. Wet Electrolytic Condenser, 500 volt working. Known by all.

Cat. 1787T 4/-

Aerovox 8mfd. Wet Electrolytic Condenser, 500 volt working.

Cat. 1797T 4/-



Curtis Midget dry type electrolytic condenser, 550 volt peak. A small condenser for a small space. Size 2 $\frac{1}{2}$  in. x 1 $\frac{1}{4}$ in. x 1in.

Cat. 1807T 4/-

Curtis 25mfd. cardboard type.

Cat. 1817T 3/9

Duco 8mfd. dry type electrolytic.

Cat. 1827T 4/6

Duco 4mfd. dry type electrolytic.

Cat. 1837T 4/-

Duco 10mfd. dry type electrolytic.

Cat. 1847T 3/6

Duco 25mfd. dry type electrolytic.

Cat. 1857T 3/6

## MICA CONDENSERS

Mica condensers are fitted in circuits where it is unsafe to use the tubular type, for fear of a break-down. The New midget Aerovox mica condenser, type No. 1468, can be obtained in the following sizes.

Cat. 1867T .00005mfd. 10d.

Cat. 1877T—.0001mfd. 10d.

Cat. 1887T—.0002mfd. 1/2

Cat. 1897T—.0003mfd. 1/2

Cat. 1907T—.0005mfd. 1/2

Aerovox type 1450, 500 volt DC working. The following sizes in stock.

Cat. 1917T .00005mfd. 1/6

Cat. 1927T .0002mfd. 1/6

Cat. 1937T—.0005mfd. 1/6

Cat. 1947T—.001mfd. 2/-

Cat. 1957T—.002mfd. 2/-

Cat. 1967T—.005mfd. 3/-

Cat. 1977T—.006mfd. 3/3

## TUBULAR CONDENSERS

Wego Condensers are English manu-fac-ture and made in the following sizes.

Cat. 1987S—.00005mfd. 3d.

Cat. 1997S—.0001mfd. 3d.

Cat. 1207S—.00015mfd. 3d.

Cat. 1217S—.0002mfd. 3d.

Cat. 1227S—.00025mfd. 3d.

Cat. 1237S—.00035mfd. 3d.

Cat. 1247S—.0005mfd. 3d.

Cat. 1257S—.001mfd. 3d.

Cat. 1267S—.002mfd. 3d.

Cat. 1287S—.003mfd. 3d.

Cat. 1297S—.0035mfd. 3d.

Cat. 1307S—.004mfd. 3d.

Cat. 1317S—.005mfd. 3d.

Cat. 1327S—.006mfd. 3d.

Cat. 1337S—.01mfd. 3d.

Cat. 1347S—.02mfd. 3d.

Cat. 1357S—.05mfd. 3d.  
Cat. 1367S—.1mfd. 1/-  
Cat. 1387S—.25mfd. 1/6  
Cat. 1397S—.5mfd. 1/6  
Cat. 1407S—.1mfd. 2/6  
Cat. 1417S—.2mfd. 3/3

Arriving shortly, Aerovox Tubulars. Sprague Condensers, 400 volt working in the following capacities.

Cat. 1427T—.001mfd. 8d.  
Cat. 1437T—.002mfd. 8d.  
Cat. 1447T—.005mfd. 8d.  
Cat. 1457T—.01mfd. 8d.  
Cat. 1467T—.02mfd. 8d.  
Cat. 1477T—.03mfd. 8d.  
Cat. 1487T—.05mfd. 8d.  
Cat. 1497T—.1mfd. 9d.  
Cat. 1507T—.25mfd. 1/-  
Cat. 1517T—.5mfd. 1/6

Chances 600 volt working condensers.

Cat. 1527T—.00025mfd. 1/3  
Cat. 1527T—.001mfd. 1/3  
Cat. 1537T—.0025mfd. 1/3  
Cat. 1547T—.005mfd. 1/3  
Cat. 1557T—.01mfd. 1/3  
Cat. 1567T—.1mfd. 1/6  
Cat. 1577T—.25mfd. 1/9

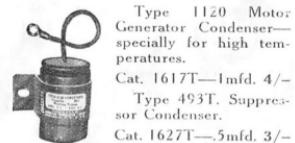
## AUTO RADIO CONDENSERS

Specially imported for Auto Radio work. Aerovox type 1130 vibrator type condenser.

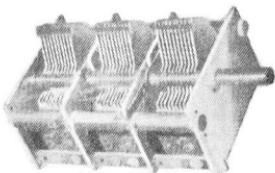
Cat. 1587T—.01 3/9  
Cat. 1597T—.04 3/9  
Cat. 1607T—.06 3/9

Type 1120 Motor Generator Condenser—specially for high temperatures.

Cat. 1617T—.1mfd. 4/-  
Type 493T. Suppressor Condenser.  
Cat. 1627T—.5mfd. 3/-



## VARIABLE CONDENSERS



Stromberg-Carlson variable condensers are known throughout the Dominion, being manufactured by one of the leading condenser factories in Australia.

Type "G" .000385mfd. Clockwise.  
Cat. 1637T—Three gang 15/6

Type "G" .000385mfd. Anticlockwise.  
Cat. 1647T—Three gang 15/6

Type "G" .000385mfd. Clockwise.  
Cat. 1657T—Two gang 10/6

Type "G" .000385mfd. Anticlockwise.  
Cat. 1667T—Two gang 10/6

All obtainable in  $\frac{1}{8}$ in. shafts.

R.C.C. Variable Condensers. A precision job— $\frac{1}{8}$ in. shaft.

|  |      |
|--|------|
| Model 316, .00037, three gang  | 17/3 |
| Cat. 1677T   |      |
| Model 216, .00037, two gang.   | 10/6 |
| Cat. 1687T   |      |
| Model 216, .00025. A smaller capacity that is often required and often hard to obtain. |      |
| Cat. 1697T   | 10/6 |
| Model 216, .00015 shortwave and converter size, two gang.                              |      |
| Cat. 1707T   | 12/6 |
| Model 318, .00037, three gang.   |      |
| Cat. 1707T   | 17/3 |

Utility Single Gang Condensers. Definitely precision made. Supplied with vernier dial.

Cat. 1717T—Type 320, .0003mfd. 8/6

Cat. 1727—Type 319, .0005mfd. 8/6

## CONDENSERS, TRANSMITTING

The National type TMC condenser is of new design. Suitable in stages where peak voltages do not exceed 3,000 volts. Of rigid construction—Steatite-Isolantite insulation. Aluminum plates, double spaced. Air gap, .075in.

TMC—150 cap. 150mmfd.  
Cat. 1737N 25/-

TMC—100 cap. 100mmfd.  
Cat. 1738N 25/-

National type TMS is designed for low power stages. Steatite-Isolantite insulation. Aluminum plate, wide spacing. Peak voltage, 1000.

Type TMS—100, 100mmfd.  
Cat. 1747N 20/-

Type TMS—150, 150mmfd.  
Cat. 1757N 22/6

National type SEU15 .000015 double paced.  
Cat. 1767N

## CYLDON TRANSMITTING TYPE

A well-known job. Aluminum plates highly polished, wide spacing. British made.

Cat. 1777N—.00025 20/-

Cat. 1787N—.0003 21/-

Cat. 1797N—.00035 23/-

Mounting brackets for same.  
Cat. 1807N 2/3

## COUPLINGS, CONDENSER

National condenser couplings, TX9 Isolantite insulation,  $\frac{1}{8}$ in. shaft.

Cat. 1817N 5/-

National type TX10. Same as above only cheaper insulation is used.

Cat. 1827N 2/9

• HOME CONSTRUCTORS  
• DEALERS  
• SERVICEMEN

Your mail order  
will receive  
prompt attention  
from—

## THOS. BALLINGER &amp; CO., LTD.

58-60 Victoria Street

WELLINGTON

## DISTRIBUTORS FOR:

RADIOKES LTD. - - - Kit Sets and Radio Components

CLOUGH-BRENGLE INC. - - - Test and Servicing Equipment

ELECTRAD INC. - - - Controls and wire-wound Resistors

CURTIS CONDENSER CO. - - - Electrolytic Condensers

## SPECIAL FEATURE :

"EMPIRE" ELECTRIC IRONS — A reliable household Iron  
Chromium plated and attractively finished. Weight 5½ lbs.

2 YEARS GUARANTEE - - - Price : Complete with plug and cord 17/6

# CONTROLS

## ELECTRAD STANDARD VOLUME CONTROLS, ALL 4/- EACH S

All Controls have the New Electrad Carbon Element unless wire is indicated

| Spec. No.       | Total Ohms | Mod. Common Circuit                                       | Used in Circuits       | RATING IN MILLIAMPERES |         |         |      | Full on |
|-----------------|------------|---|------------------------|------------------------|---------|---------|------|---------|
|                 |            |   |                        | Taper                  | Quarter | Quarter | 3rd  |         |
| 204W (Rheostat) | 10         | Filament Rheostat   | 14                     | D                      | 630     | 630     | 630  | 630     |
| 269W-All Wire   | 20         | Filament Rheostat   | 14                     | D                      | 450     | 450     | 450  | 450     |
| 270W-All Wire   | 30         | Filament Rheostat   | 14                     | D                      | 368     | 368     | 368  | 368     |
| 271W-All Wire   | 50         | Filament Rheostat   | 14, 23                 | D                      | 352     | 352     | 352  | 352     |
| 272W-All Wire   | 100        | Grid Bias or mike current Potentiometer                   | 14, 23                 | D                      | 200     | 200     | 200  | 200     |
| 273W-All Wire   | 200        | Grid Bias or mike current Potentiometer                   | 23, 26, 32             | D                      | 142     | 142     | 142  | 142     |
| 274W-All Wire   | 400        | Grid Bias of mike current Potentiometer                   | 23, 26, 32             | D                      | 100     | 100     | 100  | 100     |
| 991W-All Wire   | 500        | Grid Bias Potentiometer                                   | 23, 26, 32             | D                      | 90      | 90      | 90   | 90      |
| 282W-All Wire   | 600        | Grid Bias Potentiometer                                   | 23, 26, 32             | D                      | 81      | 81      | 81   | 81      |
| 275W-All Wire   | 800        | Grid Bias Potentiometer                                   | 23, 26, 32             | D                      | 71      | 71      | 71   | 71      |
| 276W-All Wire   | 1,000      | Grid Bias Potentiometer                                   | 2, 23, 26, 32          | D                      | 63      | 63      | 63   | 63      |
| 992W-All Wire   | 1,500      | Grid Bias Potentiometer                                   | 8, 15, 23              | D                      | 52      | 52      | 52   | 52      |
| 232W-All Wire   | 2,000      | Grid Bias Potentiometer                                   | 8, 15, 23              | D                      | 45      | 45      | 45   | 45      |
| 233W-All Wire   | 3,000      | Antenna-Cathode Potentiometer                             | 7, 8, 15               | D                      | 37      | 37      | 37   | 37      |
| 277W-All Wire   | 4,000      | Screen Grid Potentiometer                                 | 7, 8, 15, 23           | D                      | 32      | 32      | 32   | 32      |
| 234W-All Wire   | 5,000      | Screen Grid Potentiometer                                 | 7, 15, 23              | D                      | 28      | 28      | 28   | 28      |
| 278             | 5,000      | Antenna Shunt   | 4, 7                   | E                      | 29      | 16.2    | 14.1 | 10      |
| 993W-All Wire   | 6,000      | Antenna-Cathode Potentiometer                             | 7, 8                   | D                      | 26      | 26      | 26   | 26      |
| 994W-All Wire   | 7,500      | Antenna-Cathode Potentiometer                             | 7, 8                   | D                      | 23      | 23      | 23   | 23      |
| 560             | 7,500      | Antenna Shunt   | 4, 7                   | E                      | 23.6    | 13.2    | 11.5 | 8.2     |
| 283             | 10,000     | Screen Grid Potentiometer                                 | 15, 23                 | D                      | 10      | 10      | 10   | 10      |
| 995W-All Wire   | 10,000     | Screen Grid Potentiometer                                 | 15, 23                 | D                      | 20      | 20      | 20   | 20      |
| 996             | 10,000     | Antenna Shunt   | 1, 2, 3, 4, 5, 6, 21   | F                      | 41      | 12.7    | 11.0 | 7.7     |
| 240             | 10,000     | Antenna-Cathode Potentiometer<br>Grounded centre terminal | 7                      | C                      | 35.4    | 8.7     | 7.9  | 10      |
| 573             | 12,000     | Cathode Rheostat  | 8                      | A                      | 6.5     | 7.0     | 15.0 | 38.0    |
| 875             | 12,500     | Antenna-Cathode Potentiometer<br>Grounded centre terminal | 7                      | H                      | 3.5     | 11.8    | 22.4 | 40      |
| 201             | 15,000     | Antenna-Cathode Potentiometer                             | 7                      | C                      | 29      | 7.1     | 6.6  | 7.9     |
| 899             | 20,000     | Antenna-Cathode Potentiometer                             | 7                      | C                      | 24      | 6       | 5.5  | 6.5     |
| 279             | 25,000     | Screen Grid Potentiometer                                 | 15                     | D                      | 6.3     | 6.3     | 6.3  | 6.3     |
| 280             | 25,000     | Audio Potentiometer                                       | 27, 32                 | E                      | 12.9    | 7.2     | 6.3  | 4.5     |
| 241             | 30,000     | Pickup Potentiometer or Plate tone control                | 21                     | F                      | 23.6    | 9.9     | 4.6  | 4.1     |
| 997             | 40,000     | Cathode Rheostat  | 8, 9, 21               | A                      | 3.5     | 4.0     | 8.5  | 20.0    |
| 205             | 50,000     | Screen Grid Potentiometer                                 | 15                     | D                      | 4.5     | 4.5     | 4.5  | 4.5     |
| 202             | 75,000     | Cathode Rheostat  | 8, 9                   | A                      | 2.6     | 2.9     | 6.3  | 15      |
| 242             | 100,000    | Audio Potentiometer or tone control                       | 12, 13, 18             | E                      | 6.3     | 3.6     | 3.1  | 2.2     |
| 281             | 200,000    | Audio Potentiometer                                       | 12, 18                 | D                      | 2.2     | 2.2     | 2.2  | 2.2     |
| 998             | 250,000    | Cathode Rheostat  | 9, 18, 21, 35          | A                      | 1.41    | 1.6     | 3.4  | 8.2     |
| 208             | 250,000    | Audio Pot. or tone Control                                | 11, 12, 13, 18, 32, 37 | E                      | 4.1     | 2.3     | 2.0  | 1.4     |
| 203             | 500,000    | Audio Pot. or tone control                                | 11, 12, 13, 18, 32, 38 | E                      | 2.9     | 1.6     | 1.4  | 1.0     |
| 206             | 1,000,000  | Audio. Pot. or tone control                               | 12, 18, 28, 32, 38     | E                      | 2.0     | 1.1     | 1.0  | .7      |
| 999             | 2,000,000  | Audio Pot. or tone control                                | 18, 21, 28, 32, 38     | E                      | 1.45    | .81     | .7   | .5      |

## ALL OF THE ABOVE CONTROLS ARE STANDARD CONTROLS

Volume Controls with Tap for Tone Compensation or Partial A.V.C. Return. Special Controls 10/- each T

|     |           |                                   |        |   |      |     |     |     |
|-----|-----------|-----------------------------------|--------|---|------|-----|-----|-----|
| 894 | 500,000   | Audio Potentiometer with tone tap | 36, 37 | E | 2.9  | 1.6 | 1.4 | 1.0 |
| 895 | 1,000,000 | Audio Potentiometer with tone tap | 36     | E | 2    | 1.1 | 1.0 | .7  |
| 898 | 2,000,000 | Audio Potentiometer with tone tap | 36     | E | 1.45 | .81 | .7  | .5  |

## Fader Control Units. 10/- each T

|               |         |                              |        |   |     |     |     |     |
|---------------|---------|------------------------------|--------|---|-----|-----|-----|-----|
| 890 Fader     | 30,000  | Ohms each side of centre tap | 39     | E | 3.3 | 6.0 | 6.0 | 3.3 |
| 891 Fader     | 250,000 | Ohms each side of centre tap | 39     | E | 1.2 | 2.0 | 2.0 | 1.2 |
| 892 Fader     | 500,000 | Ohms each side of centre tap | 39     | E | .8  | 1.4 | 1.4 | .8  |
| 897W-All Wire | 200     | Ohms each side of centre tap | 33, 39 | D | 100 | 100 | 100 | 100 |

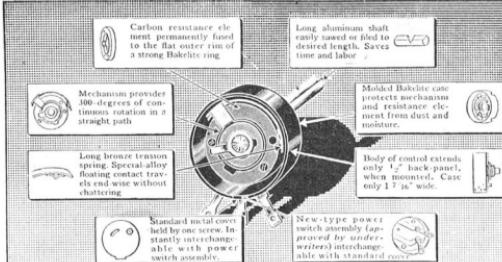
## Dual Controls for Controlling Input to P.P. Grids. 15/- each T

|      |           |   |    |   |     |     |     |     |
|------|-----------|---|----|---|-----|-----|-----|-----|
| 893T | 500,000   | each unit—Push Pull Audio Potentiometer | 40 | E | 2.9 | 1.6 | 1.4 | 1.0 |
| 896T | 250,000   | each unit—Push Pull Audio Potentiometer | 40 | E | 4.1 | 2.3 | 2.0 | 1.4 |
| 874T | 2,000,000 | each unit—Push Pull Audio Potentiometer | 40 | E | 1.5 | .80 | .7  | .5  |

## SWITCHES FOR ELECTRAD CONTROLS, 2/- ea. S

## New ELECTRAD CARBON VOLUME CONTROL

**Exclusively**  
**METAL,**  
**BAKELITE**  
**and**  
**CARBON**  
*Construction*



**Mechanically**  
**SMOOTH**  
**and**  
**STRONG**

**Electrically**  
**QUIET**  
**and**  
**EFFICIENT**

**SMOOTH . . . QUIET . . . LONG-LIVED**

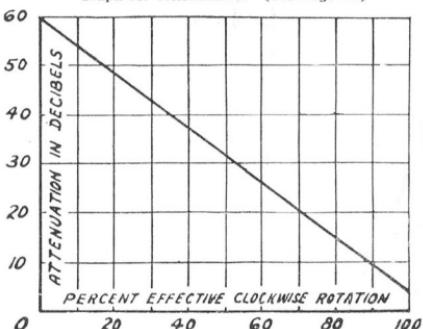
ELECTRAD Controls have many exceptional features. They are mechanically smooth and strong in operation—efficient, and you can do no better than fit this control. For further information send for a comprehensive Electrad Guide and Manual, posted free upon request. Just drop us a line to P.O. Box 324, Wellington, when we shall be pleased to send you a copy.

**SPECIAL.**—When ordering a Control, study the chart given below and make sure you ask for the correct taper.

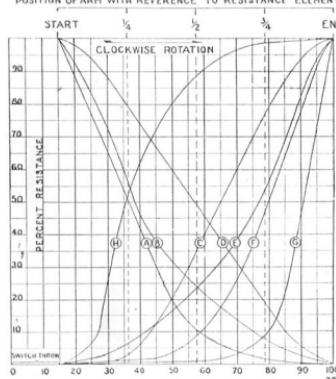
ELECTRAD MAKE A CONTROL for various Circuits.

**Important—** Be sure to check the Control against this table before using.

Graph for Attenuators. (See Page 10)



POSITION OF ARM WITH REFERENCE TO RESISTANCE ELEMENT



| Tube Type | Number Tubes | Control Used | Normal Bias Resistance in Ohms | Tube Type | Number Tubes | Control Used | Normal Bias Resistance in Ohms |
|-----------|--------------|--------------|--------------------------------|-----------|--------------|--------------|--------------------------------|
| 26        | 1            | 201          | 2250                           | 39/44     | 57           | 1            | 201                            |
|           | 2            | 240          | 1000                           |           | 2            | 201          | 600                            |
|           | 3            | 875          | 750                            |           | 3            | 201          | 400                            |
| 27        | 1            | 201          | 3500                           | 35        | 58           | 1            | 240                            |
|           | 2            | 240          | 1500                           |           | 2            | 875          | 150                            |
|           | 3            | 875          | 1250                           |           | 3            | 875          | 100                            |
| 24-A      | 1            | 201          | 500                            | 32        | 77           | 1            | 201                            |
|           | 2            | 240          | 250                            |           | 2            | 201          | 500                            |
|           | 3            | 875          | 150                            |           | 3            | 240          | 350                            |
| 35        | 1            | 201          | 350                            | 34        | 78           | 1            | 240                            |
|           | 2            | 875          | 150                            |           | 2            | 875          | 100                            |
|           | 3            | 875          | 100                            |           | 3            | 875          | 75                             |
| 32        | 1            | 201          | 1500                           | 39/44     | 6C6          | 1            | 201                            |
|           | 2            | 201          | 750                            |           | 2            | 201          | 600                            |
|           | 3            | 201          | 500                            |           | 3            | 201          | 400                            |
| 34        | 1            | 201          | 800                            | 39/44     | 6D6          | 1            | 240                            |
|           | 2            | 201          | 400                            |           | 2            | 875          | 150                            |
|           | 3            | 240          | 250                            |           | 3            | 875          | 100                            |
| 39/44     | 1            | 201          | 400                            | 39/44     | 6K7          | 1            | 240                            |
|           | 2            | 875          | 200                            |           | 2            | 875          | 100                            |
|           | 3            | 875          | 150                            |           | 3            | 875          | 75                             |

## ELECTRAD ATTENUATORS

|                       |      |
|-----------------------|------|
| Type TN 15-15 ohm T   | 22/6 |
| Type TN 200-200 ohm T | 22/6 |
| "L" Pads.             |      |
| LN 200-200 ohm T      | 15/- |
| "U" Pads.             |      |

"BN" Type.

|                  |      |
|------------------|------|
| BN 15-15 ohm T   | 22/6 |
| BN 200-200 ohm T | 22/6 |
| BN 500-500 ohm T | 22/6 |

Balanced Line Type.

|                        |      |
|------------------------|------|
| Type BCN 250-250 ohm T | 28/6 |
| Type BCN 500-500 ohm T | 28/6 |

Graph shows attenuation characteristics of type BN and BCN.

See Graph, Page 9

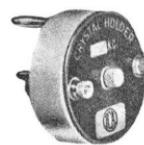
## CORDS, HEADPHONE

Headphone cords fitted with two tips and lugs for headphone connection. British made.

|            |     |
|------------|-----|
| Cat. 1817T | 2/- |
|------------|-----|

## CORDS, SPEAKER

|                  |      |
|------------------|------|
| Cat. 1827T—6ft.  | 1/6  |
| Cat. 1837T—10ft. | 1/9  |
| Cat. 1847T—30ft. | 3/6  |
| Cat. 1857T—40ft. | 4/3  |
| Cat. 1867T—50ft. | 4/11 |

CRYSTAL HOLDERS  
TRANSMITTING TYPE

I.C.A. Crystal holders are moisture proof, being made from ceramic compound having extremely low loss dielectric characteristics. Suitable for short wave and commercial transmitters.

|                         |     |
|-------------------------|-----|
| Cat. 1877V—80-160 metre | 9/6 |
| Cat. 1887V—40-20 metre  | 9/6 |

## DIALS &amp; LIGHTS, ETC.

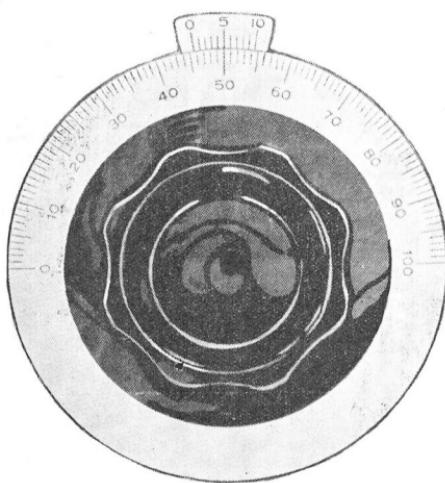
## DIALS

The dial of 1937 plays a very important part in the radio construction.

We keep a very good assortment for you to choose from.

Radiokes Dials are illustrated in their special leaflet, a copy of which will be forwarded you upon request.

Range from 12/6.



General radio type 712 similar to above but slightly smaller. 3 1/4 in. dia.

|            |      |
|------------|------|
| Cat. 1887N | 11/3 |
|------------|------|



Crowe type 371. A special dial for instrument work-oscillators, etc. No backlash. Precision made. Ratio 14 1/2 to 1 in 300 degrees.

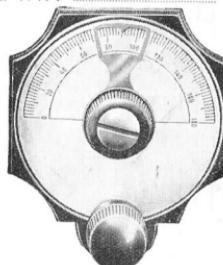
|            |      |
|------------|------|
| Cat. 1897T | 33/- |
|------------|------|

Utility dials. W346 straight line dial—full vision—inclined scale for easy tuning. Ratio 12 to 1. Smooth movement—illuminated at two points. Aperture 4 1/2 in. x 1 1/2 in.

|            |      |
|------------|------|
| Cat. 1907T | 10/6 |
|------------|------|

Utility Micro Dial. The ideal dial for S.W. receivers. Ratio 100 to 1. Entirely free from backlash.

|            |      |
|------------|------|
| Cat. 1917T | 12/6 |
|------------|------|



Ormond type 360 dial. A popular dial, with direct drive and slow ratio movement. Ratio 10 to 1.

|            |     |
|------------|-----|
| Cat. 1927T | 4/6 |
|------------|-----|

National type N dial. A precision dial where extreme accuracy is required as in oscillators, laboratory equipment.

Cat. 1937N ..... 31/6

#### DIAL LIGHTS

Do not use cheap dial lights—they burn out too quickly and cost you money in the long run. Play safe and purchase at a little extra cost dial lights of known make. We stock only good brands. We can supply either in tubular, spot or flash. Please state type required.

Cat. 1947T—Ordinary ..... 4/4 doz.  
Tubular type ..... 1/3 each  
Spot ..... 7/4 doz.

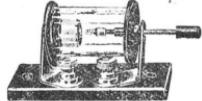
#### FUSE HOLDERS



"Bulgin" fuse holder, type F7 as illustrated—bakelite. Takes miniature E. S. cap.

Cat. 1957T ..... 10d.

#### DETECTORS, CRYSTAL



Ormond Crystal Detectors.

Cat. A1947T ..... 2/6

#### HOLDERS (LAMP OR FUSE)

Brown bakelite lamp holders. Can be used as fuse holder. Has many uses for the experimenter.

Cat. 1967T ..... 10d.

#### FUSE BULBS

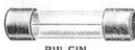
Fit either of the two above. Stocked in the following sizes: 60, 100, 150, 200, 250, 300 MA.

Cat. 1977T ..... 1/-

#### CARTRIDGE FUSES

Obtainable in following sizes: 60, 100, 150, 500, 750 MA, and 1, 2, 3 amperes.

Cat. 1987T 10d.



BULGIN

#### CARTRIDGE FUSE HOLDERS



As illustrated  
Cat. 1997T ..... 10d.

#### PANELS

Our panels are all 7in. wide, and we stock standard sizes.

#### PANEL LAMPS



"Bulgin" small signal lamp type D4. An effective model which is suitable to fit all ordinary panel thicknesses.

Red or Green. Arriving shortly.

Cat. A2047.



"Bulgin" miniature signal type, D19. A very neat component, easily fitted. Single hole mounting. Red or Green. Arriving shortly.

Cat. B2047T

#### JACKS

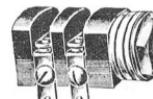


"Bulgin" single and double circuit Jacks, as illustrated. They do not take up much room therefore can be inserted in a very small space.

Cat. 2057T—S.C. ..... 1/9

Cat. 2067T—D.C. ..... 2/4

#### IGRANIC INSULATED JACKS



These Jacks are small also, being approximately the same size as Bulgin Jacks, the difference being that they are All Insulated.

Cat. 2077T—Single Circuit ..... 2/6

Cat. 2087T—Double Circuit ..... 2/9

#### HEADPHONES



The DX enthusiast must have the best type of headphones available and this is where we can recommend such headphones.

"Front" headsets are used extensively throughout the Dominion by S.W. fans and Amateur Transmitters.

Cat. 2007T—3,000 ohms ..... 15/6  
Cat. 2017T—20,000 ohms ..... 22/6

#### ERICSSON'S HEADPHONE

Another reliable English-made job which requires no introduction to the old-timer. 2,000 ohm.

#### MURDOCK HEADPHONES

A quality American headset. 3000 ohm.

Cat. B2027T ..... 24/6

#### HEADPHONE AND SPEAKER TIPS

For use on the end of phone and speaker cords.

Cat. 2037T ..... 1/- doz.

#### INSULATING MATERIALS

We stock Empire Cloth, Egyptian Superfine Tape, Adhesive Tape, Varished Tape. Allow us to quote for your requirements.

#### FORMAPEX SHEET

Excellent for terminals strips, transformers, terminal mounts, etc. Obtainable in sheets approximately 36in. by 48in.

Cat. A2047T—.015in. thick 2/3 sq. ft.

Cat. B2047T—.045in. thick 2/9 sq. ft.

Cat. C2047T—.07in. thick 5/- sq. ft.

## KNOBS

## MARQUIS KNOBS

WE STOCK A COMPLETE RANGE OF THESE AT THE RULING PRICES



MFK3



MFK4



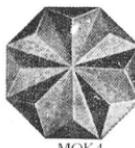
MFK1



MFK5



MOK7



MOK4



MFK2



MOK6

|   |     |
|---|-----|
| MOK7—Octagonal Type Knob .....              | 9d. |
| MFK9—Fancy Ribbed Knob .....                | 9d. |
| MOK4—Octabonal Prism Knob .....             | 9d. |
| MOK5—Octagonal Prism Knob, with rim .....   | 9d. |
| MOK4-M—Small Octagonal Prism Knob .....     | 7d. |
| MFK1—Ornamental Knob .....                  | 6d. |
| MFK2—Palm Leaf Ornamental Knob .....        | 7d. |
| MFK3—Laurel Leaf Ornamental Knob .....      | 7d. |
| MFK4—Ribbed Ornamental Knob .....           | 8d. |
| MFK5—Scroll Ornamental Knob .....           | 8d. |
| MFK7—Four-leaf Clover Ornamental Knob ..... | 9d. |



MIK8

|   |      |
|---|------|
| MFK7-P—Four-leaf Clover Ornamental Knob, with Index Pointer ..... | 9d.  |
| MOK6—Octagonal Knob .....   | 9d.  |
| MOK6-M—Small Octagonal Knob .....                                 | 7d.  |
| MIK8—Indicator Knob .....   | 1/-  |
| MIK9—Lever Switch, etc., Knob .....                               | 9d.  |
| MIK6—Switch or Indicator Knob .....                               | 10d. |

Standard finishes: Black, Black and Brown, and Walnut. A wide variety of other finishes are available to special order.



MIK6



MOK4-M



MOK6-M



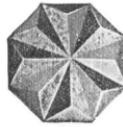
MIK9



MFK7-P



MFK7



MOK5



MFK9

## KNOBS

The COTO CONTROL WHEEL is the last word in moulded control wheel design, there being plenty of grip, enabling the operator to set with ease the device with which this is fitted.

Puts the commercial touch to any amateur transmitter. Used also on commercial transmitters.

Cat. 2097N ..... 15/-

## CRYSTALATE KNOBS

A modern type of square knob; moulded finish; gives a modernistic appearance to any radio set.

Cat. 2107T  
7d. each  
6/- doz.

Empire 8-sided knobs. Walnut, concave and convex.

Cat. 2107T ..... 7d. each, 6/- doz.

Crystalate Clover Leaf knobs. Same finish as the square knob.

Cat. 2117T  
7d. each  
6/- doz.

## CROWE POINTER KNOBS

Type No. 285 bar knob. Length approximately  $2\frac{1}{4}$  in., black. Ideal for selector switches, etc.

Cat. 2117T

Type No. 286 bar knob, same as above but smaller,  $1\frac{1}{2}$  in.

Cat. 2127T

## MICROPHONES



"Bulgin" Condenser Microphone. The condenser or capacity type microphone offers many advantages over

other type. It does not crackle or hiss and is not readily overloaded. The "Bulgin" "mike" is capable of a response from below 50 to 6,000 cycles. No blasting. No frying. Perfect response. Good sensitivity.

Cat. M2127N—Less Stand ..... 30/-  
Cat. J2127T—With Stand ..... ??

## KEYS, TRANSMITTING



"Signal" keys are used extensively by amateurs in U.S.A. Therefore they do not require introduction to the N.Z. "ham." Type R50. Crackle finished base, composite knob, heavy contacts.

Cat. D2127N ..... 12/6



## PLUGS

Marquis speaker plugs. 4.5 pin.

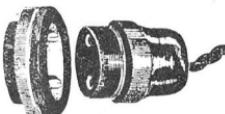
Cat. A2127T ..... 9d.



"Bulgin" Phone Plugs. A small phone plug of midget variety.

Cat. 2137T ..... 1/9

## DALTON POWER PLUGS



Modern radio design demands safety devices, and the Dalton power plug has been designed on these lines. Two hole mounting, and enables the power to be disconnected at the set.

Cat. 2147T ..... 2/-

## MARQUIS POLARISED POWER PLUGS

Similar to Dalton two hole mounting.

Cat. 2157T ..... 1/9

## BANANA PLUGS AND SOCKETS

Insulated Banana Plugs in assorted colours.

Cat. 2167T ..... 2d.

Banana Plug Sockets. Type 499, in assorted colours.

Cat. 2177T ..... 3d.

Banana Plug Sockets. Uninsulated type.

Cat. 2187T ..... 2d.

## PICK-UPS



We carry a good range of pick-ups to suit all tastes. The Cosmocord Model 15 is moderately priced, gives plenty of volume with good tone. All bakelite, and supplied complete with volume control and head rest.

Cat. 2187T ..... 32/6

Model 21. Same as above, but with needle cup.

Cat. 2197T ..... 40/-

Model 250. De Luxe Model.

Cat. X2197T ..... £3/10/-

Morphy-Richards. The balanced toned pick-up. A new type which can be recommended to those who must have a pick-up rendering an even balance of tone. Complete with volume control.

Cat. 2207T ..... 27/6

Blue Spot pick-ups have many features and are supplied with volume control. Head is manufactured of non-resonant material. Output leads fully screened.

Cat. X2207T ..... £3/10/-

Crystal Pick-ups. These are not yet to hand, therefore cannot be listed, but we ask you to enquire, when we shall be pleased to give you information of the types coming to hand.

## PLATES, NAME



Transmitter name plates, chrome and black, and supplied with mounting screws. Full range always kept in stock.

Cat. 2217N ..... 9d. each

## RESISTORS

I.R.C. 1 watt insulated metallised resistors, used by all good Radio Servicemen and manufacturers, owing to their being so reliable.

Cat. 2227S ..... 10d.  
I.R.C. 2 watt types also stocked.

Cat. 2237T ..... 1/3

Aerovox Resistors. 1 watt carbon type.  
Cat. 2247T ..... 4/6 doz.

Continental Carbon Resistors. Non-inductive, therefore are very popular.  
Cat. 2257T—1 watt type ..... 6d.

These are also obtainable in 2 and 3 watt ratings.

## RESISTANCE WIRE

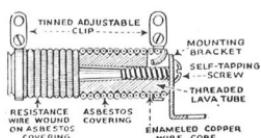
Lewcos Resistance Wire has many uses in radio work, being useful when a value of odd size is required.

Cat. A2267T—5,000 ohms ..... 6d. yd.  
Cat. B2267T—20,000 ohms ..... 9d. yd.  
Cat. C2267T—50,000 ohms ..... 1/- yd.  
Cat. D2267T—100,000 ohms ..... 1/6 yd.  
Cat. E2267T—200,000 ohms ..... 2/- yd.  
Cat. F2267T—500,000 ohms ..... 3/- yd.

## ELECTRAD, TRUVOLT RESISTORS



As we are New Zealand distributors for Electrad Inc., we shall be very pleased to send you their latest catalogue. These resistors carry a guarantee, and are conservative in their rating. Made in 10, 25, 50, 75 watt.



10 watt type "2A" made in values from .5 to 25,000 ohm.

Cat. 2277T ..... 3/9

25 watt type "B."

Cat. 2287T ..... 1

to 9,000 ohms ..... 6/-

10,000 to 25,000 ohms ..... 8/-

30,000 to 50,000 ohms ..... 9/6

50 watt type "C."

Cat. 2297T ..... 1

1 to 4,500 ohms ..... 9/6  
5,000 to 9,000 ohms ..... 10/6  
10,000 to 15,000 ohms ..... 11/6  
20,000 to 40,000 ohms ..... 13/-  
50,000 to 100,000 ohms ..... 15/-  
75 watt type "D." ..... 1

Cat. 2307T

100 to 4,500 ohms ..... 11/6  
5,000 to 9,000 ohms ..... 12/-  
10,000 to 12,000 ohms ..... 12/6  
15,000 to 40,000 ohms ..... 14/6  
50,000 to 100,000 ohms ..... 17/6

Spare Clips for all above types.  
Cat. 2317T ..... 6d.

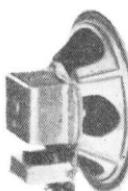
## SCREWS

The following screws are particularly suitable for radio work. All 6/32in.

Cat. 2327T

5in. ..... 5/6 gross, 6d. doz.  
3in. ..... 3/6 gross, 4d. doz.  
1 1/4in. ..... 9/6 gross, 10d. doz.  
1 1/2in. ..... 15/- gross, 1/4 doz.  
1 3/4in. ..... 15/- gross, 1/4 doz.  
2in. ..... 17/6 gross, 1/9 doz.

## SPEAKERS

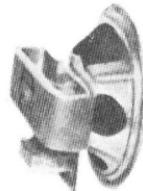


Magnavox (energised field types). The oldest and most famous manufacturers of loud speakers.

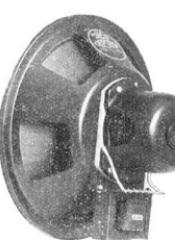
Type 154 2500 ohm field, 8in., supplied with Universal transformer  
Cat. 2337T 35/-

Type 132 1000 ohm field, 12in., for P/P Triodes Semi-high Fidelity. Improved cone construction.

Cat. 2347T ..... 57/6



Type 254 Permanent Magnet. With Universal output transformer. 8in.  
Cat. 2357T ..... 39/6



Celestion. Another famous speaker manufacturing firm of repute. Used by leading radio set manufacturers. A speaker we can thoroughly recommend to all. 8in. 2500 ohm field with

Universal output transformer.  
Cat. 2357T ..... 35/-

Jensen. A well known American brand, which has held its own on the New Zealand market. When ordering state field resistance required and whether to match Triodes-Pentodes single or push-pull.

Cat. 2377T  
ER5—5in. ..... 19/6  
ER6—6in. ..... 22/6  
ER8—8in. ..... 27/6



Celestion  
8in. Permanent type with Universal output transformer.

Cat. 2367T 45/-

## QUAM- NICHOLLS



It is necessary for us to introduce this brand of speaker to you this season. In doing so, however, you can rest assured that we have given these a thorough test our-

selves. Quam-Nicholls speakers are of improved design and master craftsmanship, enabling the manufacturers to produce, to the best of their advantage, the inherent qualities of radio.

## PERMAGNETIC TYPES

|  |      |
|--|------|
| No. 5C ChromaticJunior, 5in.                             |      |
| Cat. 2387T   | 19/6 |
| No. 6C Chromatic Junior, 6in.                            |      |
| Cat. 2397T   | 35/- |
| No. 62536 2500 field type output for single Pentod, 6in. |      |
| Cat. 2407T   | 35/- |

Note: These may be obtainable in 8in., 10in., 12in.

Premier. A cheaper variety which is very competitive in price. 2500 field output Single Pentode, 6in.

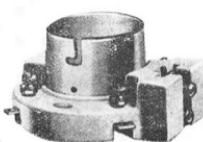
|            |      |
|------------|------|
| Cat. 2417N | 17/6 |
|------------|------|

## SOCKETS

|  |     |
|--|-----|
| Wafer sockets. 4, 5, 6, 7 small, 7 large.  |     |
| Cat. 2427T   | 5d. |
| Also Octagonal base  | 6d. |
|  |     |
| National Isolantite type. Essential for short-wave receivers and transmitters. 4, 5, 6, 7 small, 7 large; also octagonal base. |     |
| Cat. 2437V   | 3/4 |

I.C.A. heavy Isolantite 4 pin base board mounting socket. Ideal for the transmitter. The smaller type transmitting tubes fit this socket, such as the 35T, 50T, 866, etc.

|            |     |
|------------|-----|
| Cat. 2447N | 3/- |
|------------|-----|



I.C.A. 50 watt transmitting socket. This is a well constructed and heavy job, always in demand.

|            |      |
|------------|------|
| Cat. 2457N | 14/- |
|------------|------|

Marquis. These sockets are moulded bakelite (brown). 4, 5, 6, 7 small, 7 large.

|            |     |
|------------|-----|
| Cat. 2467T | 5d. |
|------------|-----|

Amphenol. This American socket is a favourite among manufacturers. Can be procured in Replacement or Manufacturer type. 4, 5, 6, 7 small, 7 large; and octagonal base.

|            |     |
|------------|-----|
| Cat. 2477V | 9d. |
|------------|-----|

Amphenol Isolantite octagonal base sockets.

|            |     |
|------------|-----|
| Cat. 2487T | 2/2 |
|------------|-----|

## SOLDER, RESIN CORED

Owing to market fluctuations we cannot guarantee to always supply at the following prices.

Kester Resin Cored Solder, put up in 4 oz. tins.

|            |     |
|------------|-----|
| Cat. 2497N | 1/3 |
|------------|-----|

Philadelphia Resin Cored Solder, in 1lb., 5lb., 20lb. spools.

|            |             |
|------------|-------------|
| Cat. 2517N | 3/2 per lb. |
|------------|-------------|

## SLEEVING

Our "Spaghetti" sleeving is of the best electro-quality. Supplied in assorted colours in the following sizes.

|            |                       |
|------------|-----------------------|
| Cat. 2527T | — $\frac{1}{2}$ mill. |
|------------|-----------------------|

3d. length, 2/9 doz.

|            |                       |
|------------|-----------------------|
| Cat. 2537T | — $\frac{3}{4}$ mill. |
|------------|-----------------------|

3d. length, 2/9 doz.

|            |          |
|------------|----------|
| Cat. 2547T | —1 mill. |
|------------|----------|

3d. length, 2/9 doz.

|            |                       |
|------------|-----------------------|
| Cat. 2557T | — $\frac{1}{2}$ mill. |
|------------|-----------------------|

3d. length, 2/9 doz.

|            |          |
|------------|----------|
| Cat. 2567T | —2 mill. |
|------------|----------|

4d. length, 3/6 doz.

|            |          |
|------------|----------|
| Cat. 2577T | —3 mill. |
|------------|----------|

4d. length, 3/9 doz.

|            |          |
|------------|----------|
| Cat. 2587T | —4 mill. |
|------------|----------|

5d. length, 4/9 doz.

|            |          |
|------------|----------|
| Cat. 2597T | —5 mill. |
|------------|----------|

6d. length, 5/9 doz.

|            |          |
|------------|----------|
| Cat. 2617T | —7 mill. |
|------------|----------|

9d. length, 8/6 doz.

|            |           |
|------------|-----------|
| Cat. 2627T | —10 mill. |
|------------|-----------|

11d. length, 10/6 doz.

## STALLOY STAMPING

We always carry stocks of the most common sizes used. "Sankey" transformer laminations are of first quality, .014 in. thick and insulated in "T" and "U" sections.

Cat. 2637T—Patt. 68. L. 2 $\frac{5}{8}$ in.; W. 1 $\frac{1}{8}$ in.; OC. 1 $\frac{1}{8}$ in. x 1 $\frac{1}{4}$ in.; IC. 1 $\frac{1}{2}$ in. x 1 $\frac{1}{4}$ in.

6/6 gross pairs

Cat. 2647T—Patt. 221. L. 3 $\frac{3}{4}$ in.; W. 2 $\frac{1}{2}$ in.; OC. 2 $\frac{1}{2}$ in. x 2 $\frac{1}{8}$ in.; IC. 1 $\frac{1}{2}$ in. x 2 $\frac{1}{8}$ in. With clamping holes in corners.

10/- per gross pairs

Cat. 2657T—Patt. 4. L. 3 $\frac{3}{4}$ in.; W. 2 $\frac{1}{2}$ in.; OC. 2 $\frac{1}{2}$ in. x 2 $\frac{1}{8}$ in.; IC. 1 $\frac{1}{2}$ in. x 2 $\frac{1}{8}$ in. With clamping holes in corners.

12/- per gross pairs

Cat. 2667T—Patt. 4A. Same dimensions as pattern 4, but with clamping holes in corners.

12/6 per gross pairs

Cat. 2677T—Patt. 28. L. 5in.; W. 4 $\frac{1}{2}$ in.; OC. 3 $\frac{3}{4}$ in. x 3in.; IC. 1.22in. x 3in.

18/- per gross pairs

Cat. A2677T—Patt. 41. Our largest size. L. 8 $\frac{1}{2}$ in.; W. 7 $\frac{1}{4}$ in.; OC. 6in. x 4 $\frac{1}{2}$ in.; IC. 2 $\frac{1}{2}$ in. x 4 $\frac{1}{2}$ in.

L=Overall length.

W=Overall width.

OC=Max. dimensions for winding.

IC=Min. dimensions for winding.

## SUPPRESSORS (INTERFERENCE)

We carry a full range of different types of interference suppressors. These are divided into two sections, namely Auto Radio and Electrical.

Spark Plug Suppressors. I.R.C. Solid one-piece construction and made without springs, steel wool, or other intermediate parts to loosen or corrode. Type M.S. easily fitted.

Cat. 2687T

2/6

Distributor suppressor type M.D.

Cat. 2697T

2/6

Belling-Lee type 1118. The standard suppressor that will cut out most interferences. Designed for operating on A.C. up to 250 volts, and to be connected at the radio set.

Cat. 2707V

16/6

Belling-Lee type 1182. For electric lifts. Housed in aluminium container.

Cat. 2717V

£5/5/6

Cartridge Type Suppressors. Although these are small they cure many weird electrical interference noises. Can be easily fitted to sewing machines, vacuum cleaners, hair dryers, electric bells, etc.

Cat. 2727T

2/-

# SWITCHES

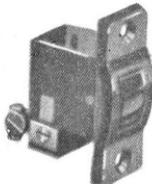


"On-off" Toggle type certified 240 volt English B.R. Q.M.B. With nickel-plated indicating plate.

Cat. 2737T ..... 2/-

Cutler-Hammer. "On-off." A quality switch made by a famous American firm.

Cat. 2747T ..... 3/9



Goltone All bakelite "On-off" oblong toggle switch.

Cat. 2757T ..... 1/6

Graham-Farrish "Snap" switch. Suitable for battery sets drawing high current.

Cat. A2757T ..... 1/6

Graham-Farrish 2-way snap switch, long neck.

Cat. 2767T ..... 2/-

Arrow (H. & H.) Two-way radiogram switch, long neck.

Cat. 2777T ..... 2/6



"Bulgin" miniature bakelite toggle switch, also obtainable in nickel-plated.

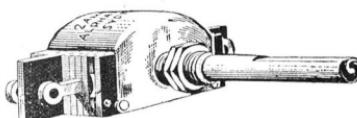
Cat. A 2777T



"Bulgin" small toggle switches.

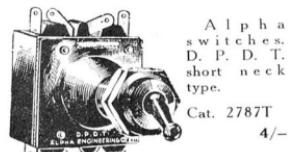
Cat. Z2777T

Alpha Switches. These are Australian make, and the Alpha Engineering Company specialise in toggle switches. Adequate stocks kept on hand. Two-way change-over standard neck, toggle. Cat. A787T ..... 2/6



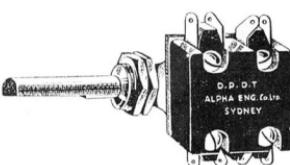
Alpha rotary types. Change-over standard neck.

Cat. 2797T ..... 3/6



Alpha switches.  
D. P. D. T.  
short neck  
type.

Cat. 2787T ..... 4/-



D.P.D.T.

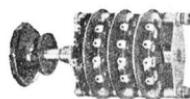
ALPHA ENG'G LTD.

SYDNEY

Alpha Rotary Types.  
standard Neck.

Cat. 2807T ..... 4/-

Alpha Push Button Type.  
Cat. A2807T ..... 4/-



Stromberg-Carlson wave change switch, triple bank.

Cat. 2827T ..... 10/6

Oak Wave Change Switches. An American made switch, reliable and made in two bank 12 contact or three bank 9 contact.

Cat. 2837T—2 bank ..... 7/6

Cat. 2837T—3 bank ..... 10/-

## TAGS

Under this heading we list our ranges of eyelets, soldering lugs. All are good quality and well tinned, which permits easy soldering.

Cat. 2847T—1A closed end  $\frac{3}{16}$  in. long  
3d. doz., 2/- gross

Cat. 2857T—2A open end,  $\frac{3}{16}$  in. long  
3d. doz., 2/- gross

Cat. 2867T—4A closed end,  $\frac{3}{16}$  in. long  
3d. doz., 2/- gross

Cat. 2877T—9A closed end double  
ended lug,  $\frac{3}{16}$  in. long.  
4d. doz., 3/- gross

Cat. 2887T—10 spade lugs.  
9d. doz., 7/6 gross

## AERIAL-EARTH SWITCHES

These switches are single pole double throw, are mounted on porcelain base and provided with lightning gap. We also stock a moulded bakelite type.

Cat. 2817T ..... 1/-

## METER SWITCHES

These are arriving shortly. A 12 to 17 contact switch with a smooth rotary action, positive contact, well made.

Cat. A2817T

## WAVE-CHANGE SWITCHES

Modern radio demands a reliable wave-change switch, one which will not give trouble at the contacts, or warp easily. Types listed are of good make, and fall in line with 1937 design.

## EYELETS

Cat. 2897T—10E nickel plated  $\frac{3}{16}$  long  
4d. doz., 3/- gross

Cat. 2907T—11E nickel plated  $\frac{1}{4}$  long  
4d. doz., 3/- gross

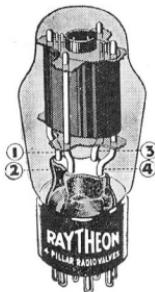
Cat. 2917T—12E nickel plated  $\frac{5}{16}$  long  
5d. doz., 4/- gross

Cat. 2927T—14E nickel plated  $\frac{3}{8}$  long  
5d. doz., 4/- gross

*What fins  
are to fishes...*



## FOUR PILLARS ARE TO A RADIO VALVE



This patented container allows your Raytheon to be tested before you buy, without breaking the carton or the guarantee seal.

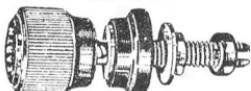
It would be a poor fish without its fins. And it's a poor life (and a short one) for the radio valve without four pillars to preserve the balance of its frail elements against jolts and the persistent vibration of dynamic speakers.

A valve can't be as well balanced with only two pillars, as Raytheon is with four. For four supports is a fundamental principal of balance.

Don't buy radio valves blindly. Look for the four sturdy pillars and the solid 4-square foundation that forms the base of Raytheons—and if they're metal valves, ask for Raytheon by name. They cost no more—and they give you infinitely longer service and clearer reception always.

**RAYTHEON**  
TRADE-MARK  
4-PILLAR RADIO TUBES  
GLASS - ALL METAL - 6 SERIES

## TERMINALS



Belling-Lee all insulated terminal plain, a very popular type.

Cat. 2937T ..... 9d.

## COLLINSON'S TERMINALS



Medium pillar type.

Cat. 2947T ..... 2/3 doz.

W.O. small pillar type.

Cat. 2957T ..... 1/9 doz.

W.O. large pillar type.

Cat. 2967T ..... 2/6 doz.

Spring type with insulated heads.

Cat. 2977T ..... 3d. ea., 2/6 doz.

Phone tip type.

Cat. 2987T ..... 3d. ea., 2/9 doz.

## INSULATED TERMINALS



No. 520 will also take banana plug. A very neat terminal with many uses.

Cat. 2997T ..... 6d.

## TERMINAL MOUNTS

Belling-Lee. These will take two terminals of any make. Baseboard mounting.

Cat. 3017T ..... 1/-

## WIRES, HOOK-UP

Stranded push-back.

Cat. 3027T ..... 3d. ft. 3/- 100 ft. coils

## TRANSFORMERS

Alladin Polyiron I.F. Transformers.

Iron cored and variable coupling 465kc type A100. This type is specially recommended in the Jones Radio Handbook for the Super Gainer Ham Receiver.

Cat. 3037N ..... 15/6

Transformers for public address equipment, but be sure you use General Transformer Corp. transformers.

No. 1014 to couple from ribbon microphone to grid Pri. Impedance .05 ohms; Sec. 75,000 ohms.

No. 1016 D.B. microphone to grid Primary 200 CT ohms; Sec. 100,000 ohms.

No. 2059 D.B.; line or phono to grid Primary 200, 500, 4,000 ohms; Sec. 100,000 ohms.

No. 1032 I to Circuit Mixer to grid Primary 50, 100, 150, 200 ohms; Sec. 100,000 ohms.

No. 1337 Self Matching Output Transformers.

The 1337 Universal Output Transformer is so designed that it enables the Service Man to service a larger number of radio sets with a single unit, in the event of an output transformer failure. Matches Triodes, Pentode with push-pull or single output. Impedances range from 1 to 130 ohms. You cannot be without the transformer in your kit.

Hammarlund Variable Coupling I.F. Transformers, 175 kc - 465 kc.

Cat. 3047N ..... 23/-

Beat Oscillator, 465 kc.

Cat. 3057N ..... 23/-

I.C.A. Aerial Matching Transformer. Required for the Double-Doublet All Wave Antenna.

Cat. 3067T ..... 15/-

## TURNTABLES

The Simpson Electric Turntable operates on 230-240 volts A.C., runs at constant speed, no brushes or moving parts to wear out. Will take up to 12in. record. Silent running, smooth running.

Cat. A3067T ..... £3/15/-

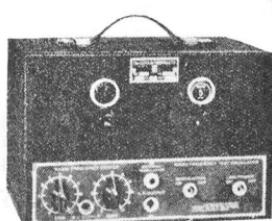


Cosmocord Gram-Chassis. A variable speed electric Turntable with pick-up. Mounted on moulded bakelite. Easily fitted. Operates on 230-240 volt A.C. Takes 12in. record.

Cat. B3067V—Type A7/UP 1937 mod.

£5/10/-

# TESTING EQUIPMENT

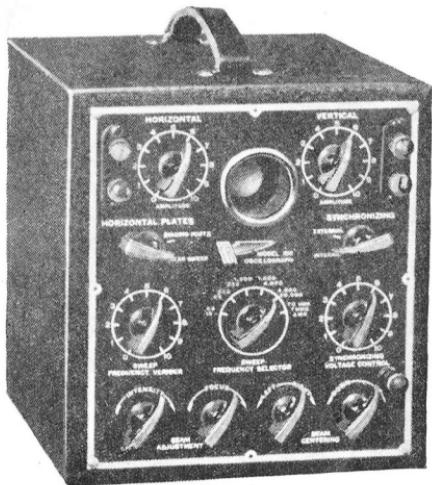


## MODEL OC-A ALL WAVE SIGNAL GENERATOR

An All Wave Oscillator operating on 230 volt A.C. Frequencies are fundamental, which are necessary in modern radio servicing. Send for illustrated leaflet which fully describes Clough-Brengle Testing Equipment.

We are New Zealand Distributors for the Clough-Brengle Incorporate, New York, who are one of the leading testing equipment manufacturers in America. Therefore we have no hesitation in recommending any of their instruments.

## OSCILLOSCOPE MODEL 105

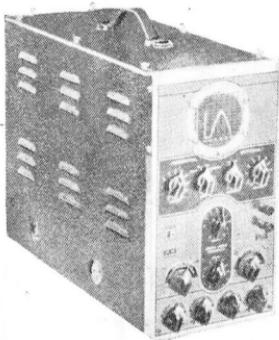


## VACUUM TUBE VOLTMETER

Model 88. A vacuum tube voltmeter of improved practicability and ease of operation combined with a peak voltmeter of the "slide back" type.

The V.T.V. has now become a frequent service instrument for measuring grid bias, a.v.c.-r.f. voltage, etc., where ordinary voltmeters of the highest sensitivity will draw current and upset circuit conditions.

## OSCILLOSCOPE MODEL CRA



Here is an instrument which offers complete facilities for countless pro-

blems of receiver circuit study and adjustment. RF alignment, I.F. alignment, resistor, condenser and vibrator tests are made while the receiver is under actual operation. Wide range sweep generating fundamental sweep frequencies up to 20,000 cycles.

## MODEL 85 UNIMETER

A moderately priced point to point set analyser which offers every facility for rapid and accurate receiver checking.

4 in. dial of the fan type variety. Ranges as follows: D.C. volts 0-15-150-750; A.C. volts 0-15-150-750; Milliamps 0.5-5-50 d.c. Housed in crackle finished case, with carrying strap and test prods.



## MODEL 95 SUPER-UNIMETER

A new analyser with added ranges to meet the requirements for quick checking.

## TO CLIENTS WHO ARE INTERESTED IN THIS EQUIPMENT

We request you to write to us asking for an illustrated leaflet giving prices on this equipment, also we shall be only too pleased to advise you on any of these instruments listed therein.

## WIRES

Screened aluminium armoured wire, single 23/36.

Cat. 3077T 3d. ft., 25/- 100 ft.

Screened spaghetti tubing. 2 mil. Cat. 3097T 2/- yd.

## Kit Sets

We list a few of the most popular Kit Sets, and you can guarantee that they will give you satisfaction and endless entertainment. Start right now and assemble your own set.

## RADIOKES DUAL-WAVE 1937 PENTAGRID 4

This set uses 1937 improvements, namely, inverse feed back. Uses four valves and is very economical on battery drain. Valve line up IC6, IC4, IK6, ID4.

A new version of the ever-popular dual wave Pentagrid Four. The use of the new Radiotron high efficiency battery tubes, including the IK6 duodiode pentode, improved A.V.C. and Litz coils and intermediates, makes this four tube receiver the most sensitive and selective of any yet released.

Series inverse feedback applied to the ID4 improves tonal quality enormously and gives a total output of .5 watt with low harmonic distortion. The tubes used are as follows:—IC6, Mixed Oscillator; IC4, Super Control I.F. Amplifier; IK6, Diode Detector, A.V.C. 1st Audio amp.; ID4, Output Pentode.

This new dual wave Pentagrid Four is a quality Kit throughout. Pi-wound Litz high selectivity coils and intermediates, Stromberg-Carlson gang condenser and the finest tubular and mica condensers and resistors are used.

Radiokes D.W. Pentagrid 4 K.P.D. with valves and Magnavox speaker

£10/17/6

Batteries extra £4/4/-

## A.V.C. BROADCAST PENTAGRID 4

While similar in design to the dual wave Pentagrid 4, this new broadcast model offers unequalled broadcast reception at an attractive price.

Quality is maintained throughout by the use of Pi-wound Litz coils and intermediates, and the finest condensers and resistors. Circuit characteristics same as for Pentagrid 4. The tubes are as follows:—1C6, Mixer Oscillator, 1C4, Super Control LF. Amplifier, 1K6, Diode Detector A.V.C., 1st Audio amp.; 1D4, Output Pentode.

Complete with valves and speaker

£9/5/-

Batteries extra £4/5/-

#### 5 VALVE A.C. "MONEYSAVER"

A new edition of the popular 5 tube A.C. Broadcast Superheterodyne. This

new model incorporates every worthwhile improvement, including "D" type-dial, BC2 Pi-wound Litz coils and T465 intermediates, Stromber-Carlson gang condenser, tone control and automatic volume control.

Quality has been improved in every way, with, of course, a consequent increase in selectivity, sensitivity and performance. The tubes used are as follows:—6A7, Mixed Oscillator; 6D6, Super Control LF. Amplifier; 6B7, Diode Detector 1st Audio A.V.C.; 42, Output Pentode; 80 Rectifier.

Complete with valves and speaker

£10/5/-

#### DUODYNE ONE

Although only a single valve, the results are amazing, and any enthusiast building this set will be rewarded by endless thrills. You already may be the proud owner of a multi-valve job, but we definitely advise any instructor to build this little set. It is compact, gives you broadcast and short-wave reception.

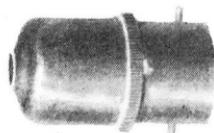
Kit complete with valves and batteries.

Cat. 3099V £3/12/6

Batteries extra £2/18/6

## ABRIDGED ELECTRICAL SECTION

#### ADAPTORS



|   |     |
|---|-----|
| Single-way bakelite adaptors                        | 3d. |
| Two-way adaptors, less switch                       | 4d. |
| "Safeways" Two-way adaptors with single switch      | 2/9 |
| "Safeways" Two-way adaptors with single cord switch | 3/9 |
| "Safeways" adaptors with two switches               | 3/6 |

#### MELLO CHIMES

Have you heard of it before—definitely no—as these are a new innovation to New Zealand. Mello Chimes are all the rage in America, announces the arrival of your guests with a melodious chime which adds dignity and atmosphere to your home. Can be operated from A.C. or D.C. batteries.

Three models are available. Send for further particulars.



Bell pushes  
small round  
bakelite, dia-  
meter 1½in.

1/—

Bell pushes  
medium round  
bakelite, dia-  
meter 2½in.

1/3

"Cubist" bakelite bell push 1/—

Barrel plush type bakelite bell push 1/3

Bakelite Pear Pushes 1/3

Bell Wire. Various colours, single, in 50 yard coils 2/6 coil

Bell Transformers. Moulded bakelite, 3, 5, 8, or 5, 8, 12 volts Secondary 240 supply 7/6

Metal Cover type, 3, 5, 8 volt. 7/6

#### PORCELAIN CONNECTORS

|  |     |
|--|-----|
| Ideal for joining two wires together.  |     |
| Single way   | 3d. |
| Two way  | 3d. |
| Two-pin Bakelite Cord Connectors (approved by P.W.D.), necessary for extension cords—vacuum cleaners, etc. | 3/6 |
| Three-pin  | 4/6 |
| Two-pin parallel   | 1/3 |

#### LAMP HOLDERS

|                          |     |
|--------------------------|-----|
| Miniature Batten Holders | 1/3 |
| Cord Grip Lamp Holders   | 1/3 |

The above are for those who wish to run low voltage lighting circuits. These holders take the ordinary motor car bulb.

#### STANDARD LAMP HOLDERS

|  |     |
|--|-----|
| "Agro" Moulded Bakelite Lamp Holders       | 9d. |
| Steel Bronze Lamp Holders                  | 1/2 |
| Moulded Bakelite Batten Holders with skirt | 1/3 |

#### INSULATED SCREW EYES

Necessary for running leads around the wall, etc. 1½in., 2in. 1d. each

#### INSULATED STAPLES

Sizes ½in. and ¾in. in packets of 100 1/6

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