MORE GOLDEN AGE OF RADIO

is intended as a companion volume to
this author's previous THE GOLDEN
AGE OF RADIO IN THE HOME,
and, as such, does not duplicate
material contained in the earlier book,
though by comparison it has less
words and more pictures.

Although many of the
manufacturers whose names appear
here have previously been discussed,
any short additional writeups now
included are for the purpose of
providing additional information.
Similarly, all illustrations are of
models not previously covered. Where
longer writeups occur, as in the
Australian section, it is for the
purpose of providing brief histories of
manufacturers on which no
information appeared in the previous
book.

FRONT COVER ILLUSTRATIONS

(Centre-piece:) AWA Fisk Radiola 130/C106, 7-V
1933.

(Clockwise from top left-hand corner).
1. AWA Fisk Radiolette C87 4-V regen SG
1932.
2. AWA Fisk Radiolette C104, 7-V Superhet
1933.
5. AWA Fisk Radiolette 33, 5-V DW 1936.
6. Philips type 950A, 4-V regen. 1931.
7. Colonial 36, 6-V SG 1930.
8. Radion 6-valve superhet 1933.
10. Ultimate chassis JCL, 5-V superhet 1933.
12. Genalex "Dapper 5" 200, 5-V 1933-34.
14. Astor "Mickey Grand" MZ, 5-V superhet
1933.

CORRECTION
The positions of the front cover
illustrations numbers 3 and 10
should be transposed.

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CRAIGS—PRINTERS AND PUBLISHERS
JOHN W. STOKES

"The 1930s were unmistakably the Golden Years of commercial Radio"

Electronics 50th Anniversary Issue April, 1980

Printed and produced in New Zealand

CRAIGS—PRINTERS AND PUBLISHERS
1990
Preface

The enthusiastic reception given to this writer's previous book*, both at home and abroad, has encouraged the production of a companion volume to cover material unavoidably left out of the earlier work, and to enable the inclusion of much new material not previously available.

The six sections into which this book is divided cover receivers made in Australia, New Zealand, the United States, Canada and Great Britain. Of these, the Australian section has been greatly enlarged by comparison with what was contained in the previous book; it has been done in response to the great amount of interest shown by Australian readers. Up to now there has been a dearth of published information on the subject of Vintage Radio in Australia, so it is hoped that this offering will go some way towards improving the position.

Coming now to the New Zealand section, this, too, has been enlarged, mainly by the inclusion of many previously unpublished illustrations. Here the object has been to provide as complete a record as possible of the many different models made by the "Big Three" New Zealand radio manufacturers. Any of the sets now remaining deserve to be regarded as being part of this country's manufacturing heritage.

As far as American receivers are concerned, there are a number of books dealing with their development and for this reason care has been taken to avoid unnecessary duplication of material already published. Those American sets covered here are, in the main, models or makes which have received little or no coverage elsewhere.

The reason for the small size of the section on British radios is because coverage is limited mainly to sets seen in New Zealand in pre-war days. As many such receivers have already been covered in the previous book, there were consequently few left to deal with here. Furthermore, as British receivers were almost unknown in Australia and were completely unknown in America, present-day interest in them in these two countries is minimal. For this reason, and because these countries are targeted sales areas for this book, there seems no good reason to include a more extensive coverage here, particularly as there is now an excellent British book available on the subject.

A sixth section has been included simply to provide somewhere to put various odds and ends which could not conveniently be placed elsewhere.

Finally, no apology is offered for the inclusion of frequent references to this book's predecessor *The Golden Age of Radio in the Home* as it was the only way to avoid duplicating much of what is contained in that book. Any reader seeking further information on many of the manufacturers or their products which are covered here will find it in the previous book.


Acknowledgements

Because the coverage of this book extends beyond the shores of New Zealand, I have had to rely heavily on help received from overseas, in this case Australia in particular. It is, therefore, with much pleasure that I gratefully acknowledge the help so willingly given by so many Australians, many of whom went out of their way to provide wanted information or photographs, in some cases to the extent of lending irreplaceable bound volumes of radio periodicals. Without their help this book could not have been completed. My thanks to all those people whose names are listed below.

NEW ZEALAND

Bill Adams
Bernie Bisphan
Stan Brehaut
Ian Brown
Paul Burt
John Danks
Murray Hall
Athol Henry
Peter Lankshear
Mark Malone
Ned Matich
Fred Pond
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Mark Thomson
Frits Willemsen

AUSTRALIA

Lou Albert
Ray Kelly
Brian Lackie
Winston Muscio
Fin Stewart
John Tuppen
Allan Wentworth

Darryl Kasch
Peter Kennedy
Morris O'Brien
Philip Renouf
Ray Tonks
John Walters

U.S.A.

Alan Douglas
Floyd Paul

CANADA

Jack Rhodes

A special word of thanks is due to the following: to Ray Knowles for his untiring efforts in supplying so many photographs of the sets in his collection; to Bryan Marsh who vetted the typescript, corrected errors and offered helpful suggestions; to Peter Lankshear who ably assisted with proof-reading the text. Thanks are also due to the Editor of Electronics Australia for permission to use material from the long-defunct Wireless Weekly a publication which provided much of the information appearing in the Australian section.

Lastly, and once again, I thank my wife for her continued forbearance during the gestation period of this book; it is the third time she has had to put up with this sort of thing.

Contents

Preface ................................................................. 5
Acknowledgements ...................................................... 6

Section  One  Australia ................................................ 9
           Two  New Zealand .............................................. 97
           Three United States ........................................ 148
           Four Canada .................................................. 188
           Five Great Britain ......................................... 193
           Six  A Small Miscellany .................................... 196

Bibliography ......................................................... 201
Index ................................................................. 202
SECTION ONE

Australia

INTRODUCTION TO THE AUSTRALIAN SECTION

Following the publication of this writer's previous book, it soon became apparent that there existed a growing demand for more information on the subject of vintage radio in Australia; the limited coverage there was in that book had merely served to whet appetites, so to speak. The rapidly growing and world-wide interest in vintage radio is nowadays apparent just as much in Australia as elsewhere, bringing with it the demand for published information on the subject.

Now, in case anyone might wonder why a non-Australian should have elected to compile and write such a history, it is simply because, as yet, there has been nothing published dealing specifically with the development of early broadcast receivers in Australia. This section of the book is offered as a "starter"; perhaps one day there will be an entire book devoted to the subject.

Although this writer can claim to have achieved publication of material dealing with vintage radio in areas outside New Zealand, and to have had first-hand experience of the times concerned, this in itself would not have been enough; the task of compiling this section would have been impossible without the generous help received from many Australian vintage-radio enthusiasts, most of whom are members of the Historical Radio Society of Australia. Their names are recorded at the front of the book.

At this point it is also appropriate to mention the indirect help received from the late Oswald Mingay through his many trade publications. As a publisher Mingay was unusual in that he had a sound technical background, having been, among other things, principal of the Australian Radio College before entering the publishing business in 1930. Present day vintage-radio enthusiasts owe a lot to Mr Mingay for recording almost every facet of Australia's radio history in his encyclopaedic series of the Radio Trade Annual of Australia.

As in any work of this nature, heavy reliance must often be placed on contemporary

Burginphone Model 8

All Broadcasting Stations in Australia have been received on this Set. ::

MASTERPIECE OF AUSTRALIAN WORKMANSHIP.

Its Tonal Qualities are Superb.

£45

Complete with All Accessories, £72.

All our Burginphones are designed, manufactured and tested entirely in our factory.

WRITE OR CALL AND SEE US TO-DAY.

BURGIN ELECTRIC CO. LTD.
WIRELESS MANUFACTURERS AND SUPPLIERS,
340 KENT STREET, SYDNEY
(Round to the Left from King Street).

Please send us full particulars concerning your Burginphone.

Name ....................................................... |

Address ..................................................

R/67 ................................................................

1925
Convincing Testimony from the wilds of Central Australia—

Further special particulars will be gladly supplied on application to the Australian Pioneers in Low-Loss Sets and Material—

THE LEVIATHAN PTY. LTD.
CORNER SWANSON & BOURKE STREETS. MELBOURNE
1925

advertisements as a source of information on the products of firms long since defunct. A list of publications carrying such ads will be found at the back of the book. Like their advertisers, these magazines have also disappeared, leaving only the present-day Electronics Australia as the direct descendant of Wireless Weekly which was founded in 1922.

ADVANCE AUSTRALIA FAIR

In tracing the origins of radio manufacturing in the Antipodes it may be observed that obviously because of the much larger population in Australia there consequently existed more scope for the establishment of an industry in that country than was the case in New Zealand. Furthermore, it was to be expected that New Zealand could provide a handy additional market for Australian products, and that proved to be the case.

So it seems appropriate when writing about Australian radio from the eastern side of the Tasman to start off by acknowledging the part played by the Australian radio industry in supplying components to N.Z. receiver manufacturers during the early 1930s. Not that the absence of Australian components would have hindered the growth of N.Z. set-making, for there was no difficulty in obtaining the needed supplies from other sources, but the Australian prices were more competitive; in fact some N.Z. factories did not use Australian components at all. However, one Auckland firm in particular—Radio Ltd—made extensive use of such well known Australian products as Stromberg-Carlson gangas, Elco dials, Jensen, Magnavox and (later) Rola speakers, Chanex condensers and Ducon electrolytics during the early 1930s. But without a doubt the most widely used Australian component was the humble control knob. At one time or another the fronts of nearly all N.Z. sets were adorned with Marquis knobs, later Nally and Union were also used.

As time went by, however, the Australian content of N.Z. radios shrank considerably due to the increasingly large amount of local manufacture coupled with an apparent preference for American components. Eventually the firm of Radio Ltd, by then Radio (1936) Ltd, was able to turn the tables on Australia by exporting Ultimate radios to that country. At the time this action caused some murmurings of discontent from the Australian industry which claimed that because these sets contained a proportion of non-British components

WHEN the Le Souef Expedition to Central Australia was being fitted out, a Radio Receiving Set of un- doubted reliability was regarded as a necessity, and accordingly a

“LEVIAPHONE”
Low Loss Set

was included in the equipment.

That this instrument has fully justified its selection is distinctly proved by the following letter received from the Expedition—

Le Souef Expedition to Central Australia,
Alice Springs, N.T., 19th August, 1925.
The Leviathan Pty. Ltd., Bourke Street, Melbourne.

Dear Sirs,—

I would like to inform you that the three-valve ("Leviaphone") Low-Loss Receiving Set which I have been using in Central Australia has given entire satisfaction, even under the most difficult conditions. I have heard many American and other foreign short wave stations working at all hours, and it is quite evident that your Set will do everything you claim for it.

Yours truly,

N. G. Atherstone, (Operator)

This congratulatory message distinctly establishes the superiority of this ultra selective set for experimental work. The outfit is complete in a finely finished and strongly constructed glass case, and supplied with Head-phones, Tubes, H.T. Batteries, Accumulator, and all aerial accessories for £11 10s.; without case, £10 10s.

Finally, the inclusion or omission of any manufacturer's name in these pages should not be taken as an indication of the relative size or importance of that firm during the period covered; it is simply a matter of the amount of information that was available at the time of writing. Thus, although the selection is representative, it is by no means exhaustive.
they should not be able to enter Australia under British tariff rates. Nevertheless two brands of N.Z. made radios, Columbus and Ultimate, continued to be exported until 1940.

As mentioned previously, it was the disproportionate size difference between the two countries which provided a large enough market in Australia for the economic production of components, whereas the tiny N.Z. market was not big enough to warrant component manufacture. Even so it was many years before Australia became self sufficient in this respect. One of the most
EARLY AUSTRALIAN COMPONENTS

WHITING
AUSTRALIAN MADE
GRAMO-PICK-UP

In the Whiting Pick-up and Tone Arm you have the very latest development. A Pick-up which gives increased volume and excellent tonal reproduction on any kind of records.

THE NEW AND IMPROVED

AUSTRA-LECTRIC
Induction Type Phonograph Motor
MADE IN AUSTRALIA

Only £7/7/- Complete
WITH TURNTABLE, SPEED REGULATOR AND STOP

AUSTRALIAN-MADE COMPONENTS OF THE 1930s
noticeable differences between the radio industries of the two countries was the early emergence in Australia of specialist component manufacturers who, as in other countries, supplied receiver manufacturers with the necessary bits and pieces which they could not, or did not choose to, make themselves.

But component making, like receiver manufacturing itself, not only required specialised knowledge but was hemmed in by patent restrictions as well. Thus it was that certain vital items such as carbon volume controls, electrolytic capacitors and loudspeakers could only be manufactured under licence to (usually) American firms.

As far as manufacturers of complete receivers were concerned, Australia and New Zealand were in a similar position with regard to patent licensing. In the beginning some smaller firms were turning out sets without the benefit of any patent licences and in the face of dire threats from the patent holders. It was partly to avoid this situation that some firms in Australia produced only kits which could be sold openly as just a collection of parts which were not liable for the payment of royalties.

Before 1934 in Australia the patent position had largely been under the control of AWA who received three shillings a year out of the 24/- annual licence fee payable by set owners to the P.M.G.'s Dept. This

EARLY AUSTRALIAN COMPONENTS

Stromberg-Carlson Condensers
For successful reception with modern circuits, the ganged condensers play an essential part. Sturdiness of construction, reliability and accuracy are features of the Stromberg-Carlson range—that is why they are standard equipment with many commercial receivers, and almost universally recommended by writers of radio, technical, and constructional articles.

For the Home Set Builder
For the Manufacturer

Designed especially for the Home Set Builder.
1 Gang 900043, less cover: 6/-
2 Gang 900405, less cover: 14/6
3 Gang 900406, less cover: 29/6
4 Gang 900407, less cover: 76/9

New, heavy type, with ball bearings. High capacity trimmers. Low minimum capacity. Ideal manufacturers’ type. Available in 2 and 4 Gang types only.
1 Gang: 16/6
2 Gang: 23/6
4 Gang: 31/2

Positively
Australian Made
SAXON
Batteries
We're Proud of
Them
Better, Fresher, and More
Dependable than Imported.

Support Home Industry. Ask Your Dealer for Them!

DRY CELLS
1½ Volt
3/3

“G” Batteries
4½ Volt
3/3

12/6

45-volt Light Duty Saxon
16/6

60-volt Light Duty Saxon
22/6

45-volt Heavy Duty Saxon
was all very well for AWA but other patent holders had to fend for themselves when it came to collecting royalty payments. Eventually, early in 1934, the position was resolved by the formation of an organisation named the Australian Radio Technical Services & Patent Co. Ltd (ARTS&P) in which all the patent holders combined to issue a single manufacturing licence under which applicants were then entitled to use any patents. This move had the effect of clearing the air and allowing receiver manufacturers to operate without fear of legal action from any patent holder. At the same time ARTS&P provided set makers with technical assistance to enable them to make best use of any patents.

In the early days both imported components and imported receivers were very much in evidence on the Australian scene, though local production continued to grow steadily over the years. But not until after 1930, following the introduction of import restrictions, intended to protect local manufacturers, did Australian made radios come to dominate the marketplace.

Before the advent of broadcasting AWA had made a limited range of components, being the first manufacturer in Australia, and probably in the Southern hemisphere, to produce such items. Following the introduction of broadcasting in the early 1920s, AWA continued to market components for general sale, but after the advent of all-electric receivers this side of the business was phased out and from then on only complete radios were offered for sale.

As in other countries, the rapid growth of broadcasting was responsible for the establishment of a whole new industry whose growth kept pace with the rising demand for components and kits on the part of home constructors, as so many listeners were in those days. However, it was not long before complete factory-made receivers were being produced in Australia, some indeed as early as 1923.

Again following the pattern in other countries, not many of these earliest manufacturers lasted for more than a few years, and even fewer lasted into the all-electric era. One who did, not counting AWA, was Radio Corporation Pty Ltd, a company which was registered in 1923 and whose “Astor” brandname became a household word. Looking back now it is worth noting that with one or two exceptions, all Australian radio manufacturers were established without overseas assistance or control. Another point of interest is that many of these firms were started by technical people, often two partners, but history relates that, by and large, technical people are not always the best equipped to handle the cut and thrust of the commercial world. One happy exception was the firm of Thorn & Smith (Tasma), whereas an example of a short lived venture was Briton Radio.

Once again as in other countries, it was firms who were established after the advent of all-electric radios who became the survivors. A few names with the dates of their establishment are cited to illustrate the point. Airzone (1931), Breville (1932), Eclipse (1932), Healing (1929), Kriesler (1933), Tasma (1929). All these manufacturers survived until well into the post-war years.

So far no mention has been made of the Australian branches of overseas companies who sooner or later set up radio factories to supply the local market. Here five names come to mind: HMV, Philco, Philips, STC and Stromberg-Carlson. Of these HMV and STC were the oldest established, though neither firm commenced making radios in Australia before 1931. Stromberg-Carlson was established in 1927 and commenced radio manufacture in 1928. The first Australian made Philips set, the model 1203, did not appear until 1931. Philco was a late starter who did not make sets in Australia until 1936.

Inevitably the age-old ploy of “badge engineering” soon raised its head and by 1935, or earlier, there existed brandname owners who did not make the sets they sold. Although the situation paralleled that existing in America, and to a lesser extent in Great Britain, there were often detailed differences in the way in which overseas companies operated in Australia. An example of this practice occurs in the case of Mullard, known in Australia as Mullard Radio Co. Pty Ltd. Receivers sold under the Mullard name were initially made by two different companies, Briton and Airzone, and after that by
Marquis Standard Range of Moulded Knobs, moulded with fine lacquered gold trim are all made to go over finish wood. The wide range allows choice in laminations with various styles of cabinets and executives, and the variety of the many types will distinctly enhance the appearance of your radio cabinet.

Marquis Mouldings of Merit

A MODERN INDUSTRY SCIENTIFICALLY AND SKILFULLY APPLIED TO PRODUCE RADIO COMPONENTS, SUPREME IN BEAUTY - UNSURPASSED IN ACCURACY, UTILITY, EFFICIENCY, AND LASTING QUALITIES - AND REASONABLY PRICED.

MARQUIS MOULDED KNOBS

Code | Name | Color | Price
--- | --- | --- | ---
MK1 | Ornamental Knob | Black & White | 3d
MK2 | Small Knob | Black & White | 2d
MK3 | Large Knob | Black & White | 3d
MK4 | Octagonal Plain Knob | Black & White | 2d
MK5 | Octagonal Plain Knob with rim | Black & White | 2d
MK6 | Small Octagonal Plain Knob | Black & White | 1d
MK7 | Polo Leaf Ornamental Knob | Black & White | 3d
MK8 | Laurel Leaf Ornamental Knob | Black & White | 4d
MK9 | Ribbed Ornamental Knob | Black & White | 3d
MK10 | Scroll Ornamental Knob | Black & White | 3d
MK11 | 4-Leaf Clover Ornamental Knob | Black & White | 3d
MK12 | 4-Leaf Clover Ornamental | Black & White | 3d

Choosing a Radio Cabinet

An informative article by an authority.

By A. P. Dickin, Managing Director, F. Dickin Ltd.

The many virtues of laminated construction are not generally recognised by the average purchaser of a radio cabinet, and it is my purpose in this short article to throw some light on this subject.

Let my readers only think that this is a modern idea, let me at once say that it is as old as the records of man himself. Sufficient for us to know that it was practised by the ancient Egyptians 5000 years ago and that the finest examples of ancient Egyptian furniture in existence 600 years ago and preserved in the various museums of the world are of laminated construction. More than that, it is known that our ancient cabinet-makers and others used an adhesive that was waterproof; this is proved by the recovery from the Nile mud of fragments of royal barges that had been immersed for thousands of years and when recovered their laminations were still adhering.

KING'S BUREAU

As a further testimonial to laminated construction I would refer to the reader to the wonderful piece of furniture now exhibited in the Louvre at Paris; this is called Bureau Le Roy, and was made for Louis XIV; also writing bureau of Marie Antoinette, now to be seen in the Kensington Museum; also the Bureau le Campagne, used by Napoleon in his many campaigns.

And many other examples that could be mentioned were all laminated construction.

THREE-PLY

This method should not be confused with the ordinary commercial three-ply; there is a vast difference between the two. The first is comprised of three rotary cut veneers and the other is built up on a solid corewood with a cross-banding veneer on both sides, and there a face veneer on both sides with the grain running in opposite directions. When properly manufactured, this product is impervious to all climatic conditions, whether heat or cold, dry or moist atmosphere; it neither twists, warps nor splits, and can be thoroughly relied upon for hard usage. Another feature of this method of construction is that it enables the cabinet-maker to use the most beautiful figured timbers that would be extremely difficult, if not impossible, to work in any way than as veneers; then again the acoustic properties of laminated construction are well known to musical instrument manufacturers, witness the sound boards of pianos are all built on this method. So that in future, when the dealer places his hand on a cabinet and says this is solid maple or solid oak remember that laminated construction, while it costs a little more, is infinitely superior.
Philips. Similarly, in the case of the British General Electric Co. Pty Ltd who marketed radios under the brandname "Genalex", and later "GEC", the sets were made by Tasma. At one time Stromberg-Carlson also marketed some models as "Audiola", but this was one of their own brands, even though the name had originally belonged to an American company, the Audiola Radio Co., which had ceased operation in 1934. Probably the best known and longest lasting example of badge engineering occurred where AWA had an arrangement with the Australian General Electric Co. to supply radios which were marketed under the name "Hotpoint Bandmaster".

EARLY CRYSTAL SETS, SINGLE AND TWO VALVE SETS

A NEW "MYRADIO" CRYSTAL SET at 25/-

**New SILVATONE Crystal Set**

Without Accessories 27/6
Absolutely complete 42/6

THE Westralian Farmers Ltd.
(Broadcasting Department)

TO POPULARISE WIRELESS.

Special Offer to State School Boys Only.

Parts ready for assembling a set, consisting of a high-frequency valve, followed by a crystal—EQUAL TO A 2-VALVE RECEIVER, for 15/-...

ADDRESS YOUR INQUIRIES TO—

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569 WELLINGTON STREET, PERTH.
SOME EARLY BATTERY SETS

National neutrodyne 5-valve c.1926

Heaco "Super 5" 5-valve neutralised c.1926

Air King 5-valve neutralised with Brown's "cabinet" speaker c.1927

Udisco "United Three" 3-valve regen. c.1923

Keogh "Advanced Radio" 3-valve battery set c.1928

Batyphone 5-valve 1924.
Made in Western Australia

"PERFECTA II."
Valve Receiver

A set constructed from Super quality parts. Look what goes with it:
1. Columbia A Cells
2. Deal B Batteries, 45 v.
3. Philips B406 Valves
4. Deal C Battery
5. Lead-in Tube
6. 100 ft. Aerial Wire.
Also, one of the famous Portable Freshman Speakers.
PART FOR PART, this is the best and cheapest 2-Valve Set in Australia.

Buckley & Nunn, Limited
Fadgery ST. MELBOURNE
1927

5-valve battery set in unusual cabinet c.1926

Galbraith-Robertson 9-valve superhet with B.T.H. cone speaker c.1929

2-Valve Set

GenuWin

1927
SOME EARLY ALL-ELECTRIC SETS

UDISCO ALL ELECTRIC 4
with Rola Speaker, built into Cabinet
Price Complete (including installation),
£38/15/-

UNITED DISTRIBUTORS LIMITED,
151 Castlereagh St.,
SYDNEY
'Phone, M3004

FARROW'S ALL-ELECTRIC "THREE"
The Supreme Combination
of all that is fine in radio!

When the effortless movement of a single dial changes you from one broadcasting station to another instantly......that's simplicity. When interfering stations can be definitely "cut-out" that's selectivity......When the sonorous volume of an orchestra or the limpid, even treble of a singer, alike are reproduced without the slightest semblance of distortion......that's tone. When excellence of craftsmanship is apparent in outward and interior design......that's beauty. And when all these are combined ......that's perfection.

Of these points the Farmer's ALL-ELECTRIC "THREE" can boast, it has added a new triumph to radio achievement!

Table model—as illustrated—duco finish, complete with aerial equipment and valves. £22

Loud Speakers from £2
Easy deferred payments if you so desire

Wireless Department, First Floor

FARMER'S
Pitt, Market and George Streets

1929
CERTAINTY OF FAITHFUL REPRODUCTION WILL BE ASSURED IF YOU INSTALL THE

AIRWAY

ALL ELECTRIC 3 VALVE RADIO SET

TABLE MODEL (Less Speaker) ... £25/10/0
FLOOR MODEL (Less Speaker) ... £28/15/0

Obtainable all Dealers.

The LAWRENCE & HANSON Electrical CO., LTD.,
33 YORK STREET, SYDNEY
Phone: B 6476 (5 lines). G.P.O., Box 3501 E.

WHATMUFF'S

SILVER BELL CONSOLE

NEW STOCKS OF

THE FEDERAL

ALL ELECTRIC 3

which created such a furore that the first shipment completely sold out in two weeks, when placed on the market, are now available at Nilsen's Showrooms.

The Federal All-Electric 3

is recognised as the greatest value offering in all electric Sets today.

Have it demonstrated at Nilsen's, and you'll appreciate the wonderful quality of Federal Orthasonic Reproduction.

PRICE, COMPLETE WITH VALVES,

£24

Terms if required.

OLIVER J. NILSEN
& Co. Pty. Ltd.

45-47 Bourke Street
CONSOLE COUNTRY

Q: What single and readily apparent feature of Australian radios, particularly during the years 1930 to 1940, distinguished them from those of other countries?

A: The extensive use of console-style cabinets.

To elaborate: so "console minded" did the industry become that at one period some manufacturers made only console models. A little research reveals that in the four years from 1936 to 1939, industry production of console models varied from about 60% to 100% of all radios made.

It is interesting to speculate as to the reason for this Australian preference for consoles. For one thing the trend was apparent quite early when as far back as 1923 quite a number of locally made battery-sets were available in four-legged, free-standing cabinets. Although with the advent of mains-operated receivers in 1928, most manufacturers initially produced small 3-valve sets in metal boxes with separate (imported) speakers, by 1932 many were offering the same sets with the option of console cabinets. By 1933 console models were in the majority, and, as mentioned above, this state of affairs continued during the remaining pre-war years.

Just why consoles should have come to dominate the marketplace in Australia in the way that they did can now only be guessed at, but it does seem that once the idea had "caught on" the buying public came to regard anything smaller as a toy, or at best, a second set. Furthermore, because the production of consoles was not restricted to large multi-valve models, many manufacturers were able to keep their prices down to extremely low levels. For example, in mid-1933 the Tasma model 155, a 4-valve superhet, was selling for only £19-10-0. And it was not a product of some fly-by-night firm either; the name Thom & Smith was always well respected in the industry.

As the 1930s rolled on, more and more manufacturers came to include at least one low-priced console in their production schedules, though to what extent these sets were "loss leaders" would be hard to determine. By 1936 most manufacturers were offering 5-valve models at 19 gns. And it was not only the smaller firms who were competing in this cut-throat field, Astor, AWA, Breville, Philips and STC had all joined in the fun.

But even 19 gns was not rock bottom for some firms; Astor’s 1936 4-valve model 55Dp was priced at the unbelievably low figure of 15 gns, and in 1937 their 4-valve model 530 was selling for 17 gns. Furthermore, these extremely low prices were maintained over a period of about four years, quite long enough to establish the console as the preferred style with the Australian buying public. By comparison, N.Z. prices were always higher and at no time did a 5-valve console sell for less than £27-10-0, the most common prices being closer to £30.

By comparison the situation existing in other countries was in complete contrast: some manufacturers made no console models at all. Particularly this was true of European countries, including Great Britain, where consoles always remained a rarity.

On the American scene, although console models were always to be found, and indeed were very much in the majority during the year 1929, they never dominated the marketplace as in Australia. In the United States, the use of console cabinets was generally restricted to higher priced top-of-the-line models, and the same was true of New Zealand.

The New Cathedral Series

The foremost designers and manufacturers of radio furniture in Australia have now installed additional plant to enable them to comply with the most exacting demands of the trade and invite your inquiries for radio cabinets in any quantity, knowing that they can fulfil all orders to your entire satisfaction.

Our representative will be pleased to call at any address in metropolitan area.

'Phone: Pet. 839

F. DICKIN Ltd.
18-34 LORD’S ROAD, LEICHHARDT, SYDNEY
ESTABLISHED 1889
1932
AIRZONE

The name Airzone first appeared in 1929, sets being advertised under the names of the distributors, Mick Simmons Ltd in Australia and J. A. Smyth Ltd in New Zealand. Two years later the company was reorganised as Airzone 1931 Ltd, under which name it remained for the next 15 years. Over this period Airzone grew to be one of the largest independent radio manufacturers in Australia.

By 1936 the factory floor area amounted to 37,000 square feet and the number of employees had increased from 80 to over 300. At this time the stated policy of the company was not to make private-brand receivers for others, yet by 1937 an agreement had been made with Mullard-Australia Pty to supply Mullard branded sets, an arrangement which lasted until 1941. In 1940 sets were also made under the brand “Peal” for a firm known as Peal Products Ltd.

Due to the original distribution in New Zealand having lapsed in 1930, no Airzone sets were seen in this country until 1936 when a firm known simply as “Airzone” P.O. Box 1050, Wellington became distributors. In 1946 Airzone became a unit of the Electricity Meter Manufacturing Co. (EMMCO), a firm which later became “EMAIL”.

The Radio popularity of the Airzone Portable is only excelled by this New Airzone A.C. IV.

AN AUSTRALIAN PRODUCT MANUFACTURED BY AIRZONE LTD.

Dealers’ applications for the few limited territories still open, must be made before the end of this month. Apply in the first instance to—

NEW ZEALAND DISTRIBUTORS:
J. A. SMYTH & CO., 71 Victoria Street, Wellington.

The price is, with Valves (Philips) £12/3/6 Complete with Philips Valves, Burgess Batteries and Loudspeaker .. £16/16/-
A Winner... in the true sense of the word!

The NEW 1931
AIRZONE CONSOLE
With Magnavox Dynamic Sneaker

Model 505 5-valve BC chassis 501 1933
Model 303 4-valve superhet chassis 300 1933
Model 530B 5-valve battery set 1934
Model 545 5-valve BC chassis 503 1934

Model 535 5-valve BC chassis 550P 1934
Model 635 6-valve AC/DC chassis 603 1934
Model 545 5-valve BC 1934
Model 525 6-valve BC chassis 602 1934

Model 303 4-valve TRF chassis 300 1933
Model 801 8-valve BC chassis 801 1933
Model 555 5-valve BC chassis 500P 1933
...where a little self praise
is a Recommendation

We've got the Widest Range...

....of the Best Radio Receivers in
Australia.... here they are..

Model 566 Broadcast 5-Valve A.C. Electric, 293 gns.
Model 567 Broadcast 5-Valve A.C. Electric, with A.V.C., 211 Gns.
Model 574 Broadcast 5-Valve Battery, 29 Gns.
Model 588 Broadcast 5-Valve Vibrator Powered, 33 Gns.

Model 551 7-Valve Battery Dual-Wave, 39 Gns.
Model 554 Broadcast 6-Valve Battery, 32 Gns.
Model 550 Broadcast 5-Valve, A.V.C., 15 Gns.
Model 452 Broadcast 4-Valve, 81/2/12/18 Gns.
Model 569 Broadcast 5-Valve A.C.-D.C. Receiver, 19 Gns.
Model 453 Broadcast 4-Valve Battery, 19 Gns.
Model 568 5-Valve A.C. Electric Dual-Wave, 28 Gns.
Model 850 8-Valve A.C. Electric Dual-Wave, 32 Gns.
Model 661 6-Valve A.C. Electric Dual-Wave, 35 Gns.
Model 661-L 6-Valve A.C. Electric Dual-Wave, 35 Gns.
Model 569 Broadcast 5-Valve A.C.-D.C. Receiver, 19 Gns.
Model 594 Broadcast 5-Valve Vibrator Powered, 30 Gns.

AIRZONE fine RADIO

MANUFACTURED BY AIRZONE (1931) LTD., 16 AUSTRALIA ST., CAMPERDOWN, SYDNEY. 1937
AMALGAMATED WIRELESS (AUSTRALASIA LIMITED)

As the history of this company has been covered in some detail in the writer's previous book*, little now remains to be added to the story.

The first Radiolas were made in 1924 at a small factory situated in Knox Street, Sydney; the total output that year amounting to 200 sets. In 1931 a move was made to a new specially built factory located in Ashfield on the outskirts of the city. Here the new "Radio-Electric" works covered an area of 75,000 sq. ft but this soon became insufficient. By 1937 the floor area had been increased to 225,000 sq. ft, making it the largest factory of its kind in the Southern Hemisphere. In that year over 50,000 broadcasting receivers were produced, quite apart from such things as transmitters and marine radio equipment.

The story of AWA is very much the story of one man's life, that of E. T. Fisk, who was knighted in 1937 as Sir Ernest Fisk.

Commencing in 1931, the name Fisk was directly associated with the name Radiola itself when these receivers were henceforth marketed under the namestyle "The Fisk Radiola" (or Fisk Radiolette, as the case may be).

Not only was AWA the first Australian radio manufacturer but more of this company's receivers were seen in New Zealand that any other Australian brand.

* The Golden Age of Radio in the Home pp146-154
The AWA Radio-Electric Works at Ashfield comprise 225,000 sq. ft of floor space, and are the largest in Australia. Set in magnificently laid-out grounds, they are aptly termed “An Australian Factory in our Australian Garden”. The number of employees actually engaged in manufacturing totals over 1,700. Every type of commercial wireless equipment for use at sea, on land and in the air is produced at the works. The company regularly exports to Great Britain wireless equipment for vessels building there for Australian and New Zealand shipping companies. The most powerful medium-wave broadcasting transmitter in the British Empire—the 60 kW broadcast transmitter of 2YA, Wellington—was designed and manufactured by AWA to the order of the New Zealand Broadcasting Service. AWA designed and manufactured wireless transmitting equipment is in operation in New Guinea, Papua, Fiji, Samoa, Tonga, Portuguese East Africa and French Pacific possessions. Over 50 broadcasting stations have been designed, manufactured and installed by AWA in the cities and country towns in Australia, and at New Zealand, Papua and Fiji. In 1937 the company produced 50,000 “Radiola” receivers.
Everywhere-Anywhere—
Radio's-There

With an A.W.A. Radiola Portable 4C Receiver

No matter whether it be at the Seaside, in the Bush, while travelling, at sport or at home; in fact "Everywhere or Anywhere" that you are able to be in range of Broadcasting Stations, you'll find Radio is there with an A.W.A. Radiola Portable 4c. Guaranteed for Twelve Months.

Price Complete, with all Accessories and Unspillable Accumulator........................ £30

ASK ANY AUTHORISED RADIOLA DEALER TO DEMONSTRATE IT.

Look for this Sign

Amalgamated Wireless (Australian) Ltd.
167/9 Queen Street, Melbourne.

April 2, 1928.

Radiola Electric Three

EASY TERMS ON ALL SETS

£24

£35

RADIOLA ELECTRIC THREE equipped entirely complete with cone speaker. In prices at £35/10/0, or, without accessories, but including electrical equipment . . .

Console Model with Magnavox Dynamic ........................................... £40

THE LISTENER IN, JUNE 19, 1929

Radiola "Straight Six" model C48 6-valve 1928
Radiola model 90/C66 1930

Designed and manufactured by the experienced Radio Engineers of Australia's Greatest Wireless Organisation.

The Radiola Screened Six
is the Ultimate in Broadcast Reception

It features a six-valve circuit, incorporating all the finest features in modern radio receiver design. The perfect reproduction of the Radiola Screened Six, its full volume, natural tone, ultra-selectivity and simplicity of operation, are such as to mark a new standard in Broadcast Receivers. The beautifully grained maple floor cabinet is of graceful proportions and harmonious design.

In addition to a built-in Amplion Cone Speaker, the cabinet provides ample space for the housing of all batteries used in connection with the operation of the set.

Price, Console Model, battery-operated
£49 complete
Goode's Orange Music Centre
SUMMER STREET
Authorized Radiola Dealer for Amalgamated Wireless Australasia Ltd.

Radiola Junior
Four Valves, including Rectifier. New type Dynamic Speaker.
Cash Price. £24/10/–
December 1932

Model 120 5-valve 1933

Radiolette 34 1934

Model 240 7-valve AW 1934

Model 146 1935

Model 139 6-valve BC 1934

Model 140 7-valve BC 1934
Model 136 6-valve BC superhet 1934

Model 186 5-valve DW 1939

Model 310 5-valve BC 1940

Model 312 5-valve DW 1940

Model 185 5-valve BC 1939

Model 270 6-valve DW 1939

Model 273 6-valve DW 1940

Model 501 5-valve BC 1940

Model 194 5-valve BC 1940

Models 49, 50, 60 1940

Model 520M 4-valve BC 1950

Fisk Radiola 1937

Models 49, 50, 60 1940

Model 262 11-valve AW 1940

Model 19 6-valve BC superhet 1934

Model 270 6-valve DW 1939

Model 194 5-valve BC 1940

Models 49, 50, 60 1940

Model 520M 4-valve BC 1950

Model 262 11-valve AW 1940
AUSTRALIAN GENERAL ELECTRIC

To set the scene, first a word about the Australian connection of the three American giants—Radio Corporation of America (RCA), General Electric Company (GE) and Westinghouse (W). RCA had been formed in 1920 and originally acted as distributor for radio receivers made by GE and W, which were then sold under the name "Radiola". Following the establishment of the RCA Victor Co. as a manufacturing unit, RCA in turn supplied sets to GE and Westinghouse which these two firms sold under their respective brandnames. This arrangement was terminated in 1932 when GE and W recommenced radio manufacture independently, continuing to market sets under their own names. The use of the name Radiola by RCA was discontinued at this time when they commenced to use the brandname RCA Victor.

The Australian branch of General Electric was established in Melbourne in 1897 where the firm’s main interest, as in other countries, was in the manufacture of industrial electrical equipment. The production of household electrical appliances was a less important aspect of the company’s business, while radios were at the bottom of the scale, or so it seemed.

Initially Australian General Electric (AGE) imported American Radiola receivers which were advertised in Australia by AGE with no mention of
The introduction of import restriction at the end of 1929 effectively put a stop to the importing of American sets and for the next year or so AGE's radio activities appeared to be on quite a low-key basis. After 1930 AWA commenced to supply receivers to AGE who marketed them first under the brand AGE, then GE and after 1933 as Hotpoint Bandmaster. The use of this brandname was continued until 1955, when the “Bandmaster” part was dropped following AGE's change of company name to Australian Electrical Industries Pty Ltd.
BANDMASTER
MICRO-SENSITIVE
RADIO

MADE IN AUSTRALIA

CLARION
COLDSTREAM
MARITANA
MOZART
GRENADIER
DUETTE
TALISMAN

SEE THEM AT THE RADIO AND ELECTRICAL EXHIBITION — STAND 25

May 10th, 1935.
especially in the least commonly appliances, States.

For the record, the name was originally used in the form “Hotpoint Hughes” on household appliances made by the Hotpoint Company in the United States. After GE took over this company they continued to use the name Hotpoint on certain appliances, but never on radios. The appliance most commonly associated with the word Hotpoint, at least outside the United States was the electric “flatiron” where the name had a special significance in regard to the even heating of the soleplate, especially the “toe” which was designed to have a hot point.
THE LISTENER IN September 16, 1933 Page 33

AGE 5-valve SG model 44A 1930

Australian GE 6-valve TRF (equivalent to AWA model 55E) 1932

Bandmaster 4-valve BC model 547MB 1937

Hotpoint Bandmaster model A33DE 1940

AGE "Duette" 5-valve superhet 1933 (equivalent to AWA 24)

Hotpoint Bandmaster model A55DE 1940

Hotpoint Bandmaster 5-valve BC model K55DE 1947

AEI Hotpoint 5-valve 1955

**For the Critical Buyer**

**THIS NEW RECEIVER**

**MAKES FULL USE OF THE REMARKABLE NEW 2A & 2B RADIOTRON VALVES**

**WHICH ENSURE:**

- Greatly Improved range & beauty of tone
- Sharper tuning with extra stations
- Improved Push-Pull amplification giving volume without distortion

**7 VALVE**

**SUPERHETERODYNE**

**"173E"**

Positively the finest receiver on the Australian market to-day. It has been specially designed to supply the growing demand amongst critical people for something better in radio.

**Price ... £39/10/0**

FOR SALE AT ALL RADIO DEALERS

Advertisement for:

Associated General Electric Industries Ltd.
Cr, Queen and Little Collins Sts, Melbourne.

Also in:

SYDNEY, MELBOURNE, ADELAIDE.

Advertisements throughout the Commonwealth.
Established in November 1932, the Breville Radio Co. became Breville Radio Pty Ltd in 1936. By 1938 twenty different models were in production and a similar range of models was produced each year until 1941. After the war production was resumed in 1946, but by 1955 Breville radios were being made by another firm, A. W. Jackson Pty Ltd, who at that time were also marketing sets under the name "Precedent". Breville receivers were being exported to New Zealand as early as 1935 but were not widely distributed. Today the name Breville is still in existence, it being used on electrical appliances.
One page of the document contains the following content:

**BRITISH GENERAL ELECTRIC CO.**

In spite of the similarity in names, neither the British parent company, the General Electric Co. Ltd, nor its Australian branch the British General Electric Co. (BGE) had any connection with the American firm General Electric Co. (GE).

In Australia BGE originally imported receivers made in England by GEC and sold in both countries under the name "Gecophone". One of the first models imported was a specially modified version of a standard 1924 2-valve Gecophone which had a limited tuning range for use as a "sealed set" in Australia.

Following the introduction of import restrictions, BGE like other importers, was faced with the choice of setting up a factory or else arranging with an existing radio manufacturer to supply "private brand" sets. The latter course was chosen. When the first Australian made sets were marketed, rather than continuing to use the name Gecophone, BGE chose a new name "Genalex", and in doing so anticipated the parent company's later action in relinquishing Gecophone in favour of GEC. On the other hand, the name BGE did not supplant Genalex until after 1952.

Genalex receivers as sold in Australia and New Zealand were manufactured by the firm of Thom & Smith Ltd who also marketed radios under their own brandname, "Tasma". The Genalex sets were standard Tasma models but had slightly different cabinets. They carried the same model numbers as...
“Type No. 1100 Metres”, the Australian sealed-set version of the Geophone BC2001. 1924

“GENALEX” 5-valve Super-lux, Junior in a beautiful walnut cabinet. 1933 £28/10/-

In beautifully finished Walnut Cabinet as £38/10/-

Twin Pentode Model in similar Cabinet £36/10/-

Other Models from £25/10/-

1932

“GENALEX” 8-valve Super-lux, built in the most magnificent cabinet wood known—figured Australian Silk-wood.

£47/10/- 1933

Genalex “Dapper 5” 5-valve BC 1933-34

Genalex cabinet housing models 310, 350, 365 1935

Radiogram with automatic record changer 1936

Genalex 6-valve BC 1934

“De Luxe 8” 1934

Genalex 5-valve BC model 320 1935

Genalex 5-valve BC 1936

Genalex 5-valve BC model 505 1938

Genalex 5-valve BC 1935

Genalex 5-valve 1936

Genalex 5-valve 1935

Genalex 5-valve 1935
The Name Behind the Product...

Since the commencement of Broadcasting in Australia the name British General Electric Co. Ltd., has been linked with the marketing of Radio Receivers of consistent high quality, performance and workmanship.

To-day, B.G.E. "GENALEX" Receivers maintain this reputation, and occupy a position of distinction in the Radio trade throughout Australia. All "GENALEX" Dealers are backed by the reputation of the B.G.E., which is their guarantee and assurance of a product of the highest grade of design and manufacture.

British General Electric Co. Ltd. are sole Australian representatives of The General Electric Co. Ltd., of England, the largest British controlled Electrical organisation in the World.

GENALEX

(REG. TRADE MARK)

Marketed in Australia by:

BRITISH GENERAL ELECTRIC CO. LTD.
SYDNEY    NEWCASTLE    MELBOURNE    PERTH    HOBART    LAUNCESTON
SOLE AGENTS AT BRISBANE AND ADELAIDE.

Made by Tasma 1937
Tasma but after 1946 the letters "BC" were added in the form of a prefix thus following the British practice.

Only once during the history of this trading arrangement was any British influence apparent when in 1933 an existing Genalex/Tasma 5-valve set, the model 180, was modified to use three Osram "Catkin" valves to become the model 200 of 1934. That only three of the five valves could be replaced by Catkin types is explained firstly by the absence of any rectifiers in the Catkin series and secondly by the absence of an RF pentode. The circuitry of the 1933 model was that of a typical Australian all-pentode autodyne superhet of the day and this necessitated retaining the original type 57-valve as autodyne mixer. For the IF stage a type MS4B Catkin was pressed into use while an Osram U12 rectifier completed the line-up. Under the brandname BGE receivers continued to be marketed into the 1960s.

BRITON ELECTRICAL & RADIO CO.

Established in 1935, the Briton Electrical & Radio Co. is an example of a small firm set up by a technical person, albeit a highly qualified one. John Noel Briton was a partner and chief engineer of the firm which carried his name. By 1936 the firm had become a registered company with a capital of £10,000.

The first Briton radios were produced in 1935 when a range of ten models was available. By 1937 the range had been increased to 20 models which were then being advertised as "Rational Radio by Briton".

Released in 1936 was a 9-valve De Luxe radiogram, model 94, which was available with either an automatic record changer or a single record player. For some obscure reason the cabinet style was advertised as "Loughboy", a word not to be found in any Australian dictionary.

An interesting development occurring in 1938 was the introduction of a series of "Philips-ised" models, the first of which was a copy of the Philips "Theatrette". Three versions were available—a 4-valve BC, a 4-valve BC battery set and a 5-valve dual-wave. With regard to these particular sets, it is interesting to note that Philips also marketed three very similar models but all three had dual-wave coverage. Thereafter most Briton models had counterparts in the Philips-Mullard range. Judging from published circuit diagrams, which after 1937 were identical for the three brands, it seems that all sets were made in the one factory, presumably Philips'. The name Briton had disappeared by 1940, in fact the company name was no longer listed in 1939, by which time J. N. Briton had left to take up the position as manager of HMV's radio factory.

The "Molwood" Cabinet (shown at left) is available in the following Models:

Model 4C.D.—A very fine 5-valve receiver using Octode AK1 with 4-volt series.

Model 4C—Model 4CC.—These are the same as 4CD but without the Dual Wave feature. 4C has manual volume control only.

Model 4E—A.C. 6-valve De Luxe receiver especially designed for country use. Daylight reception assured.

Model 12—A 6-valve A.C.-D.C. broadcast Superhet.

Model 6B—A 6-valve Battery Superhet with A.V.C. "B" class output; highgain I.F. Channel and stage R.F. "B" battery drain 8-10 mA.

The "Beatty" Cabinet (at right) is obtainable in the following models:

Model 4DWS—A 6-valve A.C. operated Dual Wave.

Model 6DWB—A 6-valve Battery operated Dual Wave.

Model 12DWS—A 7-valve A.C.-D.C. operated Dual Wave.

All three feature the famous Octode AK1, EK1 and CK1 respectively. Amazing short wave performance and exceptionally wide band coverage (18-55 metres). Incorporates A.V.C. and particular care has been taken to ensure perfect quality and high output. Also available in "Beatty" Console are Models 4CD, 4C, 4CC and 4E.

SEND FOR NEW ILLUSTRATED CATALOGUE

BRITON ELECTRICAL & RADIO COMPANY

25 MOUNTAIN STREET, BROADWAY, SYDNEY, N.S.W.
EMMCO

This firm commenced to manufacture radio components for general sale back in 1925. Among the first items advertised were audio transformers, tuning condensers and dials. With respect to the latter, it may be remarked that Emmco dials were a direct copy of the products of such well known American manufacturers as “Marco” and “National”. Components continued to be offered for sale until about 1930, but when complete radios were marketed early in 1931 the selling of components ceased.

Although the name Emmco appeared as a brandname on radios for a little over five years, the company itself continued in business. This can be
A Few only of this £52 EMMCO

5-Valve A.C. Set for £35

W. G. WATSON AND CO., LTD., have available for a limited number of fortunate people dealers' demonstration models of the famous Emmco 5-Valve Sets. These sets are well known and famed for their power and the tonal quality of the reproduction. Station after station can be tuned in without a trace of interference. The set is soundly constructed, and has such modern refinements as a band-pass filter, 3 screened grid valves, power detector, electric dynamic speaker, and a special audio system.

See this set now! At £52, thousands were sold to satisfied purchasers... at £35 you are getting the most remarkable bargain in radio.

SEE ALSO THIS

Emmco Penthode Model
A.C. 3-valve Reduced to £21'15'.

Here is the most successful 3-Valve Console Set on the market. It is a masterpiece of radio construction, and will tune in to all local stations with ease and certainty. Its most distinguishing feature is the incorporation of a special system of selectivity; and this is fully appreciated only when this EMMCO "3" is compared with any other set at anything like its price. Complete with an electric dynamic speaker and a two-tone cabinet of striking and elegant design, this set offers you sound value.

W. G. WATSON & Co. Ltd.,
279 Clarence St., Sydney — 31 Hunter St., Newcastle.

BRANCHES IN ALL STATES
"Troubadour 7" 7-valve SG 1931

5-valve superhet 1933

Model 454 1934

"Jewel" 5-valve 1934

Little Jewell 5-valve superhet 1934

Model B64 1934

Model C455 5-valve BC 1938

Model B455 5-valve BC 1935

Model D565 6-valve DW 1935

Model M455 5-valve BC 1935

(This is a mantel.)

Model AWB95 9-valve AW 1935
explained by the fact that the company withdrew from the field of direct marketing and became instead one of Australia’s largest suppliers of private brand radios, two of the best known of these being Philco and Westinghouse.

In 1937 a new (holding) company was formed known as Electricity Meter & Allied Industries Ltd which had a capital of $1,000,000. This firm later became known simply as EMAIL.

The EMMCO 7-Valve Superheterodyne All-Wave Receiver —

B R I N G S  t h e V E R Y S O U L  o f  t h e  W O R L D ’ s  B e s t  M U S I C  a n d  S P E E C H  t o  Y O U R  H O M E !

Finger-tip Control of the World’s Radio Programmes!

A Modern Miracle perfected by EMMCO. Hear what is happening in London and New York... listen-in to Paris and Moscow... get Berlin, Rome, Japan... roam the earth in a fascinating round of radio adventure... enjoy the thrill of tuning in the world’s best programmes on the marvellous all-wave Receiver—EMMCO!

Local and interstate reception is faultless. Hear how the finer details and overtones stand out and make the performance live. Never before has long-wave and short-wave reception been so perfectly combined in a single receiver—it is really two instruments in one.

A Better All-Wave Receiver has not been built!

RAZOR EDGE SELECTIVITY. Absolutely no interference from unwanted stations.

PERFECT CONTROL OF VOLUME. Even at fullest strength the tone is natural and undistorted—at whisper reduction the finest details are plainly heard.

PRICE COMPLETE £39/10/-

Your local dealer will gladly arrange a home demonstration.
Radios sold under the name Gulbransen first appeared on the Australian market in 1935 when the firm E. F. Wilks Ltd, distributors of Westinghouse appliances, decided to enter the radio field. But of course the Gulbransen radios seen in Australia were not of American origin, even though the name itself was. Import restrictions which by then had been in force for over five years, had seen all American radios disappear from the local market, even though the names sometimes remained.

When Wilks introduced the Gulbransen name they claimed to have established their own radio factory, advertising that they "Manufactured and Distributed" Gulbransen radios, but it has not been possible to verify this claim. In the event, it was not long before the manufacture passed to other hands; it is known that from 1938, if not earlier, to 1940 Gulbransen radios were made by Breville.

As mentioned earlier, Wilks were distributors of Westinghouse appliances, and in 1936 were also listed as distributors of Westinghouse radios, while the 1937, 1938 and 1939 listings stated "Wholesalers of Westinghouse and Gulbransen radios", but thereafter the Gulbransen name no longer appeared.

A distinctive feature of certain models in the 1935 range was the inclusion of volume and tone indicators incorporated not as part of the dial but in the form of separate peepholes on the cabinet front. Another feature of these same models was the provision of a swivel base which allowed the cabinets to be turned to face any desired direction.

The name Gulbransen, largely as a result of its comparatively late introduction, never became well known in Australia and after the war marketing was not resumed.

**ACOUSTIC IMPROVEMENTS**

Special features incorporated are the inclined soundboard, reproducing every vibration AT EAR LEVEL, and the revolving cabinet, mounted on a stationary base, "IT FOLLOWS YOU," makes sound directional and projects a beam of glorious music to any part of the room. An acoustic improvement exclusive to Gulbransen.

**GULBRANSEN**

"Living Tone" RADIOS

ELECTRIC AND BATTERY OPERATED MODELS

Manufactured and distributed by:

E. F. WILKS & CO. LTD., 124 Castlereagh Street, Sydney. Phone: M 6361
KRIESLER

This firm was established in 1930 as the Kriesler Radio Co. and was reconstructed in 1933 as Kriesler A/sia Ltd, becoming a proprietary company in 1938. Kriesler was one of the few smaller pre-war manufacturers to remain in business after the war, continuing to make radios until the late 1950s. An export trade across the Tasman was established as early as 1933, Kriesler being one of the first Australian radios to be sold in New Zealand.
Sterling
This Cabinet has a special veneer front, giving it a most handsome appearance; 5 or 7 valves.

Standard
With veneer Walnut Cabinet of simple harmonious design, beautifully finished; either 5 or 7 valves.

Standard
A beautifully finished Mantel Model of modernistic design. Takes either a 5 or 7 valve receiver.

Colonial
Beautiful highly figured Walnut Cabinet—a handsome addition to the furniture of any room; 5 or 7 valves.

Colonial
An attractive Mantel Radio designed on very up-to-date lines; either 5 or 7 valves.

De Luxe
The 7-valve model of this outstanding type uses three speakers, giving marvelous control over entire tonal range.

THE SET WITH A PUNCH
KRIESLER has done it again!

A Winner*

6B9—Battery All-Waver

* That is definitely a better Radio, both on Broadcast and Short Waves, than any previous Battery-operated Receivers ever produced—anywhere.

More Selectivity—
More Sensitivity—
More Power—

Wide covering on all Waves Bands, "B" Class
Triple Dial, Radiobrook, Avo Dial, etc, etc.

The Radio of the future
NOW!

£37/10/- Complete

"ALL-WAVE"

FOR 1935

Supremacy

New 7A5 All-Wave A.C.
Receiver

A few features—B.F. on all Wave Bands—175 Kc.
Dual L.P. Frequencies—Full Path High Fidelity—Right Angle Tuning—Finest Quality Construction—Super Dynamic Reproducer, etc.

£35/10/- Complete

Kriesler 7-valve AW 1933-34.

Model 210 5-valve DW 1936

6-valve SG 1932

10-valve radiogram 1935-36

Model 900 5-valve DW 1937

Model 150 5-valve DW 1936

Console 1936
Established in 1931, Lekmek Radio Laboratories, later Lekmek A/sia Ltd, initially specialised in supplying kitsets, production of which was continued until 1937. Manufacture of complete radios was commenced in 1932 and was carried on for several years after kitset production had ceased. In December 1933 an ambitious project was the production of an 11-valve all-wave superhet, claimed to be the first of its type in Australia.

The number of different models produced annually grew from nine in 1933 to no less than 33 in 1938. By 1940, however, radio manufacture had ceased and production was not resumed after the war.
WHAT SATISFIED OWNERS THINK OF LEKMEK

RICHMOND, NTH. QLD.

... We can get very good daylight reception from several stations with your 34-VM (6-Valve) set, and it is easily the best we have handled. All your Australian stations, right down to 2AY Albury, come through splendidly (subject, of course, to atmospheric conditions), using only five feet of inside aerial. K77 and the main Australian stations come through very clearly.

(Signed) M.M.

PALMERSTON NTH., N.Z.

... The writer has so far logged no fewer than 88 stations, including twelve Americans. All your Australian Stations, right down to 2AY Albury, come through splendidly (subject, of course, to atmospheric conditions), using only five feet of inside aerial.

(Signed) T. & J.

CARISBROOK, VICT.

... The tone quality and volume of the Lekmek is excellent.

(Signed) G.M.B.

WUBIN, W.A.

... My business is in selling the best obtainable, and your products are certainly that.

(Signed) A.T.B.

ARMIDALE, N.S.W.

... I am delighted with the Lekmek supplied. It knocks all others in the background around here, and the tone is excellent.

(Signed) N.R.

LAUNCESTON, TAS.

... The Lekmek installed at Campbelltown, Tas., brings in Sydney & Graz stations at excellent strength during the day. Such results have hitherto been unknown in this locality.

(Signed) S.J.

MAY 26, 1933

Manufactured in Australia by

LEKMEK RADIO LABORATORIES
(N. S. Gilmour). 75 William Street, Sydney.


New Zealand Factory Representative: R. Harold Court, 123 Queen Street, AUCKLAND.
A comprehensive range of thirteen models with six distinctly different cabinet styles. Each one a good selling line with no service troubles. Full price range from 11 gns.

Apply immediately for dealer franchise—all Lekmek and make money.

Lekmek Radio Laboratories
(N. S. Gilmour), 75 William St., Sydney. Phone FL

ARCTURUS CABINET
Model 710 TV DU

AJAX CABINET
Model 513J 5V BC

VENUS CABINET
Model 513C 5V BC

Distributors:
SYDNEY, MELBOURNE, BRISBANE,
HOBART: The Lawrence & Hanson Electrical Co. Ltd.

Model 513C 5-valve BC "Lekole" 1935
Model 509 "Duole" 5-valve DW 1937
Model 509 5-valve DW "Duole" 1935

A comprehensive range of over 25 exclusive models—electric, battery, air-cell and vibrator operated.

MODEL 540 in Euclid console as illustrated, with large edgelit dial, full automatic volume control, sirufer intermediates, etc..................... 20 gns.

MODEL 402 Portable, popular four-valve battery set in portable leathertette cabinet (complete with all batteries) ........................................ 16 gns.

MODEL 403V Elf, four-valve, vibrator operated set for country areas. No "B" or "C" batteries—complete with six-volt accumulator, sirufer intermediates ....................... 21 gns.

MODEL 541T Homer, five-valve triple-wave electric with "Visiongraph" edgelit dial, Lekmek ten inch speaker and "Tunerlight" automatic tuning beam, sirufer intermediates, housed in luxurious Homer console cabinet ........................................ 28 gns.

Distributed throughout Australia by Lekmek State distributors and dealers. Some territories are still open to dealers, so apply at once as the "1938 Anniversary Series" will mean constant sales for you throughout every month of the year.

LEKMEK (Australasia) LIMITED
75-81 WILLIAM STREET, SYDNEY

1938
Originally the Mullard Radio Co. Ltd (later Mullard Australia Pty Ltd) imported only valves, but in March 1935 the first two Mullard radios were marketed. They were both battery-operated superhets using 2-volt English type valves. One was a 7-valve set styled Mark I, while the other was a 5-valve model known as Mark II. Both were housed in metal boxes but no speaker was normally supplied, it being classed as an extra. Described as "units", these unusual two models were intended for modernising existing battery-operated console sets of any make. All that was required was to cut a suitable opening in the front panel of the cabinet and place the set in position. The idea was certainly original but it apparently met with little success in the marketplace and very few seem to have been produced.

Not until 1937 did the first mains-operated Mullards appear. These were initially made by Airzone and were standard Airzone models fitted with slightly different cabinets. This arrangement continued until 1940 when Philips commenced to supply Mullard-branded sets thereafter. Following the end of World War II, sets continued to be marketed under the Mullard name until 1955 when the name was changed to Fleetwood.
As in New Zealand, the first Philips radio products seen in Australia were imported items such as loudspeakers and battery eliminators. One of the first receivers to be seen in both countries was the type 2510 "Radioplayer". In Australia this 1929-30 model was still being advertised as late as May 1931, by which time import restrictions had been in force for over a year, so it seems that the sets advertised were old stock. In the event, no further sets were imported.

In common with other importers in the same position, Philips then had to choose between making their own sets in Australia or having them made by an existing local manufacturer. They chose the former course and by the end of 1931 the first Australian set arrived. It was a 3-valve SG model housed in a well finished wooden cabinet of somewhat unconventional design in which the (magnetic) speaker faced the floor. It must be said...
about this set that, by Australian standards of the
day, it was of an unprogressive design, though by
European standards a set of this type, albeit in a
table-model cabinet, was quite common.

Later in 1931 a new model, type 1404, was
launched, but not long afterwards all radio
production ground to a halt. Just what happened is
not clear, but it is known that the chief engineer, Y.
B. F. Groenfeld, left to join Tasma, though whether
his departure was the cause or the result of this
situation is likewise unknown.

For the next year or so Philips had to be content

HEAR a new Philips 1203
and realise what 1931
radio really is. The 1203 is
the result of many years re-
search by Philips in Aust-
ralia, and in presenting this
model it is felt that a new
standard has been achieved.

Tone, volume, and selectivity
are all such that the 1203 is
the ideal entertainer for the
home. And as a thing of
beauty the piano-finished
cabinet represents the ulti-
mate in consoles, “at home
in any home.”

WIRELESS WEEKLY
Friday, October 16, 1931

The NEW 1203

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with selling valves, and not until 1934 did any more radios appear on the market. At the 1934 Sydney Electrical and Radio Exhibition held in May of that year not a single Philips receiver was to be seen; a card on the display stand featuring other products bore the inscription: “Philips Radio Receivers will shortly be on sale again in Australia”. In September 1934 the promise was fulfilled with the release of a 5-valve superhet console, the only model produced that year. It is interesting to note that the speaker grille in this model was in the form of the familiar Philips “stars and waves” motif, though it was not in circular form, and this was carried on in three of the 1935 models which used the same cabinets.

It was not until 1935 that radio production really got under way when in May of that year nine different models were released. All but one, model 5625, were consoles, in keeping with the great Australian tradition. A feature of all 1935 models was the so-called “Micro Index” dial which allowed instant removal of the dial scale, a much advertised feature in view of the impending wavelength reshuffle which came into force in September of that year. Purchasers were entitled to a free revised scale when the time came.

After 1935 the production of radioplayers increased by leaps and bounds and by 1937 there were 13 models available. This had increased to 19 in 1938, and to 23 in 1939, though, because some models remained current for two years running, there was some overlapping in the yearly listings.

In 1939 Philips commenced to make sets for Mullard (Aust) Pty Ltd, taking over this job from Airzone who had been the previous suppliers. However, Mullard marketed only a limited number of radios, considerably less than the full Philips range. By this time, too, a tie-up with Briton had taken place, with the result that in some cases a particular model might be issued under all three brands, e.g. Philips 1052 = Mullard 62 = Briton 440. After the war Philips continued to make sets for Mullard, though by this time the Briton name had long since disappeared.

Originally known as Philips Lamps Australia Ltd and later as Philips Lamps (A'sia) Pty Ltd, the company name was changed to Philips Electrical Industries of Australia Pty Ltd after the war. Radio production was continued until the 1960s.
PHILCO IN AUSTRALIA

In March 1936 Philco radios arrived on the Australian market amidst a blaze of publicity. Prior to this, the name Philco had been virtually unknown in Australia due to import restrictions imposed at the end of 1929. But now, it seemed, Philco were determined to make up for lost time. There existed a sort of precedent for this move because some three years earlier Philco had established a manufacturing unit in Great Britain, but not before thoroughly researching the British market and satisfying themselves as to the viability of the venture. After three years of operation in the United Kingdom the claim was made: "Philco now dominates the British Market", but no figures were quoted in support of this claim, which seem exaggerated, to say the least. Apparently on the strength of this success Philco had decided that the time was now right for an Antipodean venture.

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Philco dealers may well join in the celebrations! For the immediate trade reaction to Philco's newest models has been "How can you do it at the price?" Here is "eye-appeal" wedded to "pocket-appeal" in a way that no prospective buyer could possibly overlook — and with it go the traditional Philco Quality and Performance that have kept Philco far ahead in world-wide sales for ten successive years. Join up with Philco this year — and celebrate. A few good territories are available for men who believe that a good branded set at the right price can be sold in volume.

"Plug-in and Play" Convenience

The new PHILCO BUILT-IN LOOP AERIAL

Built right into the cabinet on appropriate models to give better reception, less interference and lower noise level. No trailing earth wires or aerial lead-ins. "Plug-in and play" wherever there's a point or socket. A feature you can demonstrate.

PHILCO ANNIVERSARY MODEL No. 40-50


PRICE — 21 GNS.

Also released: Model 40-59. Exceptionally good short wave performer. S.W. coverage 13 to 43 metres.

PRICE — 24 GNS.

STATE DISTRIBUTORS:

QUEENSLAND: Howards Limited, 317-327 Adelaide Street, Brisbane.
WEST AUSTRALIA: J. G. Fitchard Ltd., 360 Murray Street, Perth.
TASMANIA: Southern Distributors: McCann Bros., 160-164 Elizabeth Street, Hobart.

Product of PHILCO RADIO & TELEVISION CORP. (AUST.) PTY. LTD., WATERLOO, N.S.W. 1960
the setting up of a factory, Philco chose instead to have their sets made up by an existing Australian manufacturer, the Electricity Meter Manufacturing Co. (Emmco). Emmco was an old-established firm which had originally made radio parts back in the 1920s and had turned to the manufacture of complete radios in 1931 which were marketed under the name Emmco for a few years. After 1936 only private-brand radios were made. By August 1939 advertisements of the Philco Radio & Television (Aust) Pty Ltd indicated that Philco was “An Associate Company of Electricity Meter & Allied Industries Pty Ltd”, (later to become known as EMAIL).

Bearing in mind that the Australian radio manufacturing industry was both well established and highly competitive, 1936 seemed rather late in the day to launch a new line of receivers, even for a “World Leader” like Philco. The Trade journal Radio Retailer of Australia commented in the March 20, 1936 issue: “one cannot but admire the audacity of the new Australian organisation in attempting to come into a field which is already fairly well supplied, and dispute the leadership of long-established organisations”. Reading between the lines, it would seem that the Australian radio trade did not exactly welcome the intrusion of this American giant. Of course Philco was not the only overseas firm to get into receiver manufacturing and/or distributing in Australia for some, such as Philips, STC and Stromberg-Carlson, had been at it for years.

Of the 17 different models released by Philco in 1936, many had equivalents in the Emmco and Westinghouse ranges being marketed at the same time. The model numbering system used at the time was related in all three brands. However, shortly afterwards receivers were no longer marketed under the Emmco name, and after 1939 Westinghouse radios were henceforth made by AWA. After the war Philco radios reappeared on the scene but by 1949 were being made by Airzone which had by then also become a unit of Email.

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October 1, 1928.

**Popular Hobbies**

**Homecrafts**

*Distributors of the Famous*

**ASTOR Radio**

ASTOR All Electric Console, Complete, £45.

Just fill in and mail Coupon for full particulars of ASTOR Receivers

ASTOR 5-Valve Neutrodyne (Table), Set Only, 19 Gns.

“Little” ASTOR (Table Model), Set Only, 11 Gns.

“Little” ASTOR (Console), Set Only, 21 Gns.
The origins of this Melbourne based company can be traced back to 1923 when two young men, Clark and Hagblom, commenced manufacture of a small line of components intended for use in home-constructed receivers of the day. Three years later, in 1926, they combined with two other small manufacturers to form a company known as Radio Corporation of Australia Ltd. This company contracted to supply receivers under the name "Astor" to another Melbourne firm, Louis Cohen Wireless Pty Ltd, who became distributors for Melbourne and Adelaide. Not long after this, these two firms combined to form a new company known as Radio Corporation Pty Ltd. In 1939 Radio Corp. and another Melbourne firm, Eclipse Radio Pty Ltd, became subsidiaries of the newly formed Electronic Industries Ltd.

Let all the Family Share
in the New Broadcasting

Don't leave them out in the cold while you listen-in with earphones. Let them enjoy wonderful speaker reception of all the programmes with this amazing little receiver—

Our ASTOR Shielded TWO

Costs only £7/9/6 COMPLETE
With All Accessories only speaker extra, from 37/6.
One of the earliest Astor all-electric receivers produced was advertised in January 1928 as—"The Only Efficient Entirely Batteryless Radio In Australia". It was a 5-valve, 3-dial TRF with a front panel which made it look more a battery set than an AC model. In June of the same year Radio Corp. secured a Hazeltine manufacturing licence and produced the first Astor neutrodyne models. By the end of 1928 a new 3 dial model was available and other models included a "Shielded 2", a "Shielded 3", a "Little Astor" and a new 5-valve single-dial neutrodyne, all of which were housed in wooden cabinets.

The 1929 range included the earlier Shielded 3, now being sold at the reduced price of £7-5-0 less speaker, and a new 5-valve single-dial neutrodyne available in either a metal box or in a console cabinet with inbuilt speaker. Also in 1929 the name “Astor-Aladdin” first appeared, being used to describe a 3-valve metal-box model. By the end of the year the final metal-box set, a compact 3-valve known as the “Little Astor”, was produced.

By 1930 distribution of Astor receivers had been extended to New South Wales when for a short time Amplion Asia Ltd were appointed distributors. At this time, January 1930, a 6-valve model using two screen-grid RF stages was being advertised as “the New Astor Double Screen Grid”. Not long after this the New South Wales distribution passed into the hands of Smith, Sons & Rees Ltd.

A new line of SG TRF models was released in mid-1932 which was advertised as being “the Arabian Nights Series of Radios”. These included the 6-valve “Sultan”, the 4-valve “Kismet”, and the 3-valve “Aladdin”. A prominent feature of all models was an oversize 95 degree arc dial carrying station markings illuminated by a travelling pointer. This appears to have been the first Australian example of the practice of marking station call-signs on the dial, a practice which was eventually taken up by all other manufacturers.
Right at the end of 1932 the first Astor superhet was announced. It was a 5-valve autodyne model housed in an almost identical 4-legged cabinet as used on the earlier Kismet TRF. Presumably because of the cabinet similarity it was also named Kismet, though why the same name should be used on an entirely different model is not clear.

The Arabian Nights theme was carried on into 1933 with the production of a new version of the Kismet, model “OU”, in a modernistic cabinet replacing the earlier 4-legged style. Other models in the 1933 range were the 4-valve “Cassim” and the 9-valve “Pasha”, plus an unnamed 5-valve AC/DC model. In keeping with industry trends, all receivers produced after this time were superhets, with any consoles being of the short legged or legless variety.

Also in 1933 came the first of the now famous “Mickey Mouse” models, a name which has become indelibly associated with the name Astor itself. Such was the continuing popularity of Mickey Mouses (Mice?) with the Australian buying public that they remained in production for the next seven years! A dry-cell battery version was produced in 1939 while the AC version was still being advertised in 1940.
It was during the 1930s that Walt Disney's famous screen character rose to the height of his popularity and Radio Corp. lost no opportunity of wringing every ounce of publicity out of his name. When in 1934 an Astor console speaker was introduced for use in conjunction with Mickey Mouse models, guess what it was named—"Minnie Mouse". A year later a somewhat larger radio known as the "Mickey Grand" appeared on the scene and this seemed to be the last Astor in which the word Mickey was used in the model designation.

In using the name Mickey Mouse it seems that Radio Corp. had given no thought to any possible problems with copyright in Australia, or else had decided to take a chance on getting away with it. By 1936, however, they were left in no doubt over the matter when Walt Disney Studios instituted legal proceedings against them. The case dragged on for over a year, hinging largely on whether the words "Mickey Mouse" could be registered as a trademark. Eventually the matter was settled and, as mentioned earlier, Astor continued to use the name until 1940.

Over the years Radio Corporation grew to be not only the largest radio manufacturer in the state of Victoria but also one of the largest in the Commonwealth; in fact the company claimed to be one of the largest in the Southern Hemisphere. By 1940 the factory occupied 86,000 square feet of space and the workforce numbered over 1200. The company continued to occupy a leading position in the industry until its closure in the 1970s.

For some reason Australian made Astor radios were never sold in New Zealand, though this in itself was not unusual because many other well known Australian brand names never became known on the eastern side of the Tasman either. However, in the case of Astor there may have been a special reason. Since 1933 there had existed in New Zealand a company named Radio Corporation of N.Z. Ltd (RCNZ). Of course this similarity in names may have been purely coincidental (a search of the company's records reveals no Australian shareholding), but on the other hand . . . ?

Even though no Australian made Astor radios were marketed in New Zealand the name Astor did eventually, and briefly, appear on the N.Z. scene when a limited range of models were made under this name by the Akrad Radio Corporation of Waihi during the late 1950s. By this time RCNZ had been taken over by the Pye-Wooller Group and some of the N.Z. Astor sets were made in the old Wellington factory. It is interesting to note that although the Waihi-built Astors were simply standard Akrad models they were assigned Australian style 3-letter model numbers, examples being BNQ, JFU, PLK and so on. The Astor name was also used briefly during the 1960s on television sets made in Waihi. These too were standard N.Z. models and, as in the case of radios, were assigned Astor-style 3-letter model numbers.
The company that produced Raycophone receivers did not initially make radios at all as it was originally established for the purpose of manufacturing cinema sound systems. Raycophone Ltd was founded in November 1929 by Raymond Cottam Allsop, who was by then a well known identity in Sydney radio circles, and one who was to become even better known in the years ahead. The name Raycophone, used as both a company name and product tradename, was derived from Allsop's first name.

After an earlier career in "wireless" and, later, broadcasting which included construction of the

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**RAYCOPHONE LTD**

Sydney broadcasting station 2BL, Ray Allsop, who was also one of Australia's first licensed "hams", became interested in the recording and reproduction of sound on movie films. It was the coming of the "talkies" in 1929 which gave him the opportunity to get in on the ground floor of this exciting new development, and led directly to his becoming commercially involved in the manufacture and installation of cinema sound equipment. Such a step was indeed a bold venture for a 31 year old Australian for the field of sound-on-film reproduction was dominated by American interests.
But in 1929 the time was ripe. Cinema owners were falling over themselves in their haste to get their theatres “wired for sound” to enable the screening of the new talking pictures, and Ray Allsop was ready to supply and install the necessary equipment. By 1931 his firm could claim to have installed Raycophone sound systems in 112 theatres.

The decision to enter the field of radio manufacture appears to have been influenced by two factors: a lessening demand for talkie installations once the initial rush of business had subsided, and the encouragement given to Australian radio manufacturers by the introduction of a high tariff on imported receivers.

In July 1930 the first Raycophone radio was announced. It was a 5-valve screen-grid console known as the AC5. In November of the same year came one of Australia’s first midget sets, the 3-valve “SG Penthode”. This set was housed in a cabinet which bore a striking resemblance to the American Keller-Fuller “Radiette” model F12 (see illustration).
FIVE VALVE SETS ARE THE POPULAR CHOICE

What is the ideal purchase in Radio? The ideal purchase in Radio is the highest possible quality that one can afford.

All of us would be proud to own a de luxe radio, likewise a de luxe automobile, but with our existing commitments it is not always possible.

RAYCOPHONE HAS THE FIVES!

This Raycophone series of five-valve models enables everyone to purchase a high quality radio at a reasonable figure!

MODEL 454ME
5-Valve Superheterodyne, Weston visual tuning, automatic volume control, matched dual speakers, tone control, and static reducer, outstanding modernistic cabinet. £26/15/-. Available on Easy Terms.

MODEL 254PE AND 154PE
Five-valves—Australia's first Reflex Superheterodyne, equivalent in performance to six-valve models.

Consolette, £21/10/-; Mantel, £18/18/-

Other Raycophone Models from £47/10/- to £12/10/-.

SOLE DISTRIBUTORS:

Harringtons LTD.

386 GEORGE STREET, SYDNEY

And all States

Telephone, BW2181
Following this came the model 41E, a 5-valve SG TRF. Unlike the previous year's model it used a type '45 triode in the output stage thus conforming to industry practice of the day.

For a short period about this time certain Raycophone components were advertised for general sale although, unlike some other manufacturers, the firm never marketed kitsets.

Among the several models produced in 1934 was a 5-valve chest, the 154PE, which was claimed to be "Australia's first reflex superheterodyne", though the exact release date was not stated. However, it should be noted that AWA were advertising their first reflexed model, the Radiolette 24, at least two years before this.

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**PRICES:**

- **Table:** £22/17/6
- **Console:** £27/17/6
- **Easy Terms**

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Example of use of a Weston tuning meter by Raycophone. March 1933
months earlier, in January of the same year.

Factory output of Raycophone receivers appeared to peak around the years 1933-1934, but not long afterwards manufacture was discontinued. During the few years that they were in business, Raycophone Ltd had gained a reputation for the manufacture of well designed and well constructed sets so the reason for the decision to cease manufacture may be wondered at. Possibly there may have been problems with distribution as the exclusive distributors, the old-established firm of photographic merchants, Harringtons Ltd, who had branches in all states and New Zealand, also gave up business at this time.

Reliance Radio Co. (A/sia) was established by one N. S. T. Craven in May 1932. Some idea of the size of the outfit may be gauged from the absence of the words "Ltd" or "Pty" in the company's name during its short existence.

By August 1932 a 5-valve AC kitset was being advertised, as well as a complete 5-valve battery set in a console cabinet. Later in the same year a 5-valve "De Luxe Convertible" was being offered. This was a battery set using the then new 6.3-volt tubes and was available with an optional converter unit which could convert the set to work on AC or DC mains. Early in 1933 the Reliance range consisted of five consoles, with the convertible model being claimed as the lowest priced set in its class.

By the end of 1933 there were seven models being offered, ranging from the 5-valve "Phoenix" at the astonishingly low price of £8-16-8 to the 9-valve "Reliance-York" at £46-13-4; at the same time Wireless Weekly kitsets were still being advertised. The production of the "York" can be seen as an indication of a swing towards the production of larger, higher-quality models; it was guaranteed for five years.
In the following year, 1934, this trend was confirmed when the York, now a 10-valve model, was claimed to be "Australia's Most Luxurious Radio". However, low priced models were still being offered, examples being the Reliance-Oxford console priced at £22-10, and the Reliance-Bedford console at the amazingly low price of £14-17-6. That any one manufacturer should cater for the extreme ends of the price range was in itself quite unusual.

The production of a 12-valve model, the Reliance-York "12", in 1936, confirmed the direction in which the firm was heading as thereafter no low priced models were advertised. With its large circular tuning dial and massive squarish cabinet the "12" could be described as an Australian "Scott", but the resemblance was mainly superficial. In any case, Scott did not use "aero" dials for another two years, the first model so equipped being the 1938 "Philharmonic". The 1934 claim to be "Australia's Most Exclusive Radio" had since then become the company's slogan which continued to be used until the last model was produced in 1937.

It was in 1937 that Reliance's "piece de resistance" appeared in the form of a 20-valve model, the "York-Royal". At the time Wireless Weekly were sufficiently impressed by the arrival of this monster to devote a three-page spread to a description of its many technical features. Like the 1935 Scott, it used push-pull parallel 2A3s, though in this case the output was modestly claimed to be only 20 watts. An interesting feature of the audio end was the use of two 12-inch permanent-magnet speakers fed from a 200 ohm line and housed in a separate and very massive cabinet. It should be noted that the provision of a separate speaker cabinet capable of being placed at some distance from the receiver proper was quite a new concept at the time and one which became universally used in connection with hi-fi amplifiers only after World War II.

The production of the York-Royal seems to have been in the nature of a swan song as thereafter nothing further was heard of the company or its founder.

**STANDARD TELEPHONE & CABLES A/SIA LTD**

Because there was initially some similarity between telephone apparatus and radio apparatus, it was perhaps not surprising to find certain telephone manufacturers branching out into the then new field.
WIRELESS DAYS and NIGHTS

Radio waves at lightning speed are passing over your home. You can call a halt on these invisible waves and listen to the messages they bear. Grand Opera, a Lecture, a Speech, or the latest Market and Weather Reports—all these and much more if you have a Radio Set. To obtain the utmost in Radio Entertainment you need Western Electric Radio-phones. Full information and advice on the selection of equipment gladly given at a personal call or by post.

Western Electric Company
(Australia) Ltd.
192-194 Castlereagh Street, Sydney
Phones: City 336, 356

1923
WONDERFUL VALUE IN WESTERN ELECTRIC RADIO SETS

The keenest radio enthusiasts are agreed about the uniformly high efficiency of Western Electric apparatus. The latest in Western Electric wireless equipment—WECONOMY Radio Sets—assure the same high standard of reliability, yet are cheaper to buy, less expensive to maintain and exceptionally easy to use. Their real value is exemplified by the £19 WECONOMY 2-Valve High Frequency Set, sold complete with headphones, valves, battery box, and batteries for £21/-

It is operated by dry cell batteries—the inconvenience and expense of rechargeable accumulators are done away with. Using head receivers it has a guaranteed range, under normal conditions, of 250 miles. Where loud speakers are to be operated we recommend WECONOMY 4-Valve and 5-Valve Sets. Write for illustrated booklet "WECONOMY Radio Sets." If possible call for an instructive demonstration.

Western Electric Company
(Australia) Ltd.
192-4 Castlecrag St., Sydney. Phone: CITY 336, 355 or 356

"Supersonic-nine" battery operated 9-valve superheterodyne 1930

The Ideal Country Receiver

HERE it is! The S.T.C. Supersonic—a radio receiver giving the stronger, clearer, daylight reception of nine amazingly efficient valves at half the cost of upkeep of most six valve sets.

The ease with which this powerful receiver tunes in distant stations in the daytime is a revelation. So, too, is its superlative natural tone. For the S.T.C. Supersonic-Nine has been designed especially to do full justice to the world-famous Western Electric 24-inch Kone, the loud speaker used by the Australian Broadcasting Company for testing the singing and playing qualities of artists seeking broadcasting engagements.

You can purchase an S.T.C. Supersonic-Nine with entire confidence, for it is manufactured in Australia by Standard Telephones and Cables, who have been entrusted to equip completely the Commonwealth Government's new high-powered broadcasting stations.

Write for full particulars of this wonderful radio receiver to day.

Standard Telephones and Cables (Australia) Limited
71 York Street,
Sydney.

of radio manufacturing during the early days of broadcasting. For example the Swedish firm of L. M. Ericsson, after establishing a British branch, made certain items of radio equipment for a very few years but by 1924 had withdrawn from this field. In the United States the Stromberg-Carlson Telephone Mfg Co. entered the radio manufacturing field in 1923 and continued production of radios, and eventually television sets, until the 1950s.

Another American telephone manufacturer who also became involved was the Western Electric Co. (WE), but for the purpose of this narrative it is unnecessary to make further mention of this company except to say that in 1883 a British office, known as Western Electric Co. Ltd, was opened for the purpose of handling sales of telephone equipment in the United Kingdom. By 1923, following the advent of broadcasting, British WE, which by then had established manufacturing facilities, commenced to make a limited range of radio equipment. As early as 1924, a 7-valve, superheterodyne had been produced and marketed but, being far ahead of its time, was little more than a curiosity. In those days the majority of sets were simple "detector and audio", and these too were made by WE.

Throughout the 1920s the British company's involvement in the area of domestic radio production was on a very low-key basis and was eventually discontinued completely. For a short period in 1926 a tie-up with the Birmingham Small Arms Co. (BSA) resulted in the production of a line of battery sets which were marketed jointly under the name BSA-Standard, but this was a short lived venture.

Not until after the establishment of a separate radio factory, Kolster-Brandes Ltd in 1927, was receiver production commenced on a larger scale. Even so it was several years before the K-B name became well known in the marketplace, and in the meantime STC were still in the radio business. The
degree of overlap can be judged by the fact that as late as 1932 STC were marketing sets under the name Standard, but this represented the end of domestic receiver production by STC and henceforth the market was left to Kolster-Brandes.

The foregoing information has been included as a background to what happened in the Antipodes as the Australian company's roots were in London rather than in New York; not that developments in the United Kingdom had any direct effect on the production of radios in Australia.

In 1895 British WE opened an office in Sydney which seven years later, in 1912, became a registered company—Western Electric Co. (Australia) Ltd. By 1924 small quantities of British made WE receivers were being imported to supply the as yet diminutive market, and for the next few years activities in this area remained on a very small scale.

As mentioned earlier, a change in corporate name occurred in 1925 when WE became Standard Telephone & Cables A/sia Ltd. As far as radio manufacturing is concerned it has been difficult to pinpoint the exact starting date, though the company claimed to have made radios as early as 1926. It is known that a 9-valve battery superhet, the "Supersonic Nine" was marketed in 1930, this set apparently being assembled from kitset parts supplied by STC (UK). The idea of a 9-valve battery set in 1930 is somewhat mind boggling even though

PROBABLY no name in Australian radio has to live up to such a world-famous reputation for tone, efficiency and dependability as that of S.T.C.—the symbol of Standard Telephones and Cables. For S.T.C. apparatus is used in the famous British Official Wireless Station at Rugby—in the Anglo radio telephone services to America and Australia—in the giant liners of the world—famous White Star and Cunard Steamship Companies—and in numerous national broadcasting services in Europe, South Africa, New Zealand, and Japan. In Australia, the Commonwealth's new high power relay broadcasting stations at Newcastle, Rockhampton, Corowa, and Port Pirie, are being equipped throughout with S.T.C. apparatus.

WORTHILY UPHOLDING A WORLD FAMOUS REPUTATION!

For Local Reception

The S.T.C. Screen Grid Penthode Electrode Three-valve receiver enables you to enjoy in your own home the sparkling first-class broadcast signal of the best of the best—without those annoying noises which so frequently choke and impair an enjoyable feature of three-valve sets in the past. It will enable you to hear your favorite local station without irritating interference from some powerful station thousands of miles away. The high degree of selectivity of a particularly high radio, clear-crisp—natural—no irritation, make up of volume you choose to use, plus the S.T.C. Screen Grid Penthode electric "tuners" is, without doubt, the outstanding feature for three-valve set performance in Australia to-day. It is guaranteed for twelve months. If a new set is ever required you will have the pleasure of knowing that it is a beautiful model, complete with instructions.

1 Valve $28/19/6

4 Valve $15/12/6

For Interstate Reception

The S.T.C. screen grid penthode electrical four-valve receiver will be found entirely satisfactory for the reception of Interstate broadcasting. Possessing all the desirable features of the B.E.C. screen grid penthode electrical three-valve receiver plus the extra power of an additional valve, this receiver enables you to tune in Interstate stations without fuse or bother. There are no howling, whistling noises to mar reception. Clear-crisp—natural tone and absolute freedom from interference from nearby broadcasting stations are outstanding features for twelve months the S.T.C. screen grid penthode receiver four can be obtained. It is guaranteed for twelve months. The S.T.C. screen grid penthode receiver four can be obtained. It is guaranteed for twelve months.

1 Valve $31/19/6

4 Valve $33/12/6

S.T.C. Australian made radio receivers worthily uphold in every way the unique and enviable reputation which the Company's products enjoy among radio, experts the world over.

For efficiency of design, quality of workmanship, naturalness of tone, and dependability, they represent the most outstanding value in radio receivers in Australia to-day.

Here are such modern improvements as screen-grid and porthole valves, dynamic loud speakers' power detection, single lift amplification and volume volume control, each developed to a state of perfection never before equalled in the history of Australian made radio.

STANDARD CABINET

The above receiver is a full size cabinet, being 1 foot 3 inches high, 1 foot 1 inches wide, and 1 foot deep. It is supplied in oak, mahogany, and rosewood finish. A cushion covered with the interior finish is fitted.

STANDARD CRADLE

Fitted with the S.T.C. screen grid thyratron valve receiver. It is known as Model No. 101. It is fitted with the interior finish in oak, mahogany or rosewood. It is fitted with the interior finish in oak, mahogany or rosewood.

1 Valve $23/10/-

4 Valve $31/10/6

Made in Australia by Standard Telephones and Cables (Australia) Limited

71 York Street, Sydney

QUEENSLAND: E. V. Hudson, 47 Charlotte St., Brisbane.

VICTORIA: G. B. Felez, 588 Flinders Street, Melbourne.

SOUTH AUSTRALIA: Unbehl and Johnson, 36 Gawler Place, Adelaide.

TASMANIA: W. and C. Genders Pty. Ltd., 69 Liverpool Street, Hobart.
The Fifth Test — Played in Your Own Home

City and country residents alike never regret the purchase of an S.T.C. Radio Receiver.

City users find that the S.T.C. "Electric Three" gives amazing volumes with deliciously NATURAL tone and absolute freedom from overlapping of unwanted stations.

Country users find that the battery operated S.T.C. Supersonic Receiver jives Interstate daylight reception with amazing ease and unusual clarity at half the usual cost of upkeep.

Both types of users have the satisfaction of knowing that their sets are fully guaranteed by the Company who is supplying the British radio network's new high power broadcasting equipment.

Hear them at your radio dealer's or at the manufacturer's showrooms or write for full particulars.

Newcastle Residents: — See S.T.C.'s Stand, 34 Main Hall, Radio Exhibition.
operated sets equipped with WE "Kone" speakers were also produced.

By 1932 a new range of improved screen-grid TRF models was in production, by which time a change had been made to the use of American type valves (initially Raytheon). Thereafter STC never used Philips Continental type valves in any models, unlike many other Australian set makers. However, certain other components of Continental origin, chiefly paper capacitors, continued to be used by STC until about 1935. This was because Australian component manufacture was in its infancy and initially could not meet the demands of receiver manufacturers. Thus, before the introduction of import restrictions, STC was able to use "Standard" capacitors and resistors made by a European "Associate".

Also in 1932 STC receivers were first exported to New Zealand, these being exactly the same as those sold in Australia except for the use of a different speaker. Sets sold in New Zealand up to about 1935 were fitted with "Standard" type S.S.100 8-inch EM speakers of European origin. It was the later introduction of import restrictions in New Zealand which allowed the use of imported componentry up to this time.

STC claimed the "upkeep" to be only half the cost of most 6-valve sets. To achieve this the set must obviously have used the famous "peanut" Wecovalves, though these were normally intended for dry-cell operation.

Not until 1931 did radio manufacture begin in earnest when in that year two all-electric TRF models were produced. These were the 301, a 3-valve plus rectifier model, and the 401 which had an extra RF stage. The circuitry of both was extremely unconventional in that they used a neutralised triode RF stage (or stages, as the case may be) followed by a screen-grid detector feeding a pentode output valve. Philips valves were used throughout, which obviously accounts for the pentode output stage. In the same year two models of battery
Bearing in mind what has been said about the use of components of non-British origin in STC radios, a claim appearing in a 1932 New Zealand advertisement that these sets were "British-made throughout" seems to be stretching a point, to say the least. To be charitable, the statement may just have been the work of an over enthusiastic copy writer.

Production of STC radios grew steadily during the 1930s with the number of different models offered increasing year by year. From a total of ten in 1936 the number increased to 26 in 1937 and to 35 in 1938 and 1939, though it must be realised that these figures did not represent the number of different chassis produced in a particular year. Domestic receiver production was resumed after the end of World War II but ceased during the 1960s.

Export of receivers to New Zealand had ceased by 1938 after the introduction of import restrictions which remained in force during the entire period that valve-equipped radios were in production. At the time of writing, 1988, STC is still operating in New Zealand under the name Standard Telephones & Cables (NZ) Ltd as an importer of electronic goods and as a manufacturer of non-radio equipment. In Australia the corporate name became Alcatel STC Australia in the 1980s.

S.T.C. Police Radio Receiver of the type now being installed in police stations of the Sydney Metropolitan Division. Specially designed to the order of the N.S.W. Police Department, these receivers are equipped with "Codan"—a device which energises the receiver only whilst a message is being received, thus suppressing noise and interference between transmissions.

S.T.C. Police Radio Receiver of the type now being installed in police stations of the Sydney Metropolitan Division. Specially designed to the order of the N.S.W. Police Department, these receivers are equipped with "Codan"—a device which energises the receiver only whilst a message is being received, thus suppressing noise and interference between transmissions.

In Australia the name Stromberg-Carlson can be traced back to 1919 when Leslie Percival Reed Bean founded a firm bearing the name, L. P. R. Bean & Co. Ltd, to import telephone equipment from the Stromberg-Carlson Telephone Mfg Co. of Rochester, New York. Later, in 1923, Bean commenced local manufacture of some types of equipment and also began importing the first S-C radio products, which in those days consisted only of headphones and headphone plugs and jacks. Later, when S-C commenced to manufacture additional radio items, such as audio transformers and speakers, these were imported as well. It was in 1923 that the American firm commenced manufacture of complete receivers having obtained a Hazeltine Neutrodyne licence for
Stromberg-Carlson

TREASURE CHEST RECEIVERS

S

Stromberg-Carlson Treasure Chest Receivers are entirely "Australian-make," designed by Australian Radio Engineers and are backed by the Stromberg-Carlson Laboratories, Rochester, New York, which are of International renown. They embody to the greatest possible extent the many quality features, so well known and associated with the name — Stromberg-Carlson.

They represent the first completely chassis designed Radio Receiver produced in Australia, and are the last word in scientific radio design and construction. The choice of models is very wide, and the range of prices makes it possible for purchasers of average means to acquire a Quality Radio Receiver that will give entire satisfaction.

Stromberg-Carlson Receivers are specially designed to suit Australian conditions, and are pre-eminent in range and tonal quality.

All of our Receivers fit into the handsome wooden Console, illustrated. Into the bottom compartment can be fitted the Batteries or a Dynamic Speaker.

PRICE: — — £11/15/-
(Cabinet only)

All Models Illustrated are mounted on steel Chassis, and are housed in handsome Steel Cabinets, finished two-tone Brown, with Golden High-lights.

They are equipped with Beautiful Old Gold escutcheons, and are all essentially "one-dial control" machines.

Stromberg-Carlson Treasure Chest

BATTERY 3.

Gives a rare opportunity to people of slender means to own a quality Receiver, housed in a handsome steel cabinet, which is of the same design and finish as our dearest model.

Price, £8/10/-
(Batteries, valves, and speaker extra.)

Stromberg-Carlson Treasure Chest

ALL-ELECTRIC 6.

(*) 7 Values in all—see footnote.

No Batteries—simply plug into your electric light socket. Specially developed for 1929-30 trade. Similar in design to our "Battery Six," and giving equally gratifying results. It is the Commonwealth's leading all-electric six.

Price, £35.
(Valve and speaker extra.)

*IMPORTANT. All electric sets require an additional valve for purely current rectifying purposes. Take notice that some manufacturers advertise "Electric Six" with only six valves in all or the "Electric Seven" with only seven valves in all, the former is really only a 5 valve receiver and the latter a 6.

Stromberg-Carlson Treasure Chest

ALL-ELECTRIC 3.

(*) 4 Values in all—see footnote.

No Batteries needed—simply plug into your electric light socket. Noted for its selectivity and volume.

Price, £21/15/-
(Valve and Speaker extra.)

*IMPORTANT. All electric sets require an additional valve for purely current rectifying purposes. Take notice that some manufacturers advertise "Electric Three" with only 3 valves in all or the "Electric Four" with only 4 valves in all, the former is really only a 3 valve receiver and the latter a 4.

Stromberg-Carlson Treasure Chest

BATTERY 6.

Specially designed for 1929-30. It is a super-power receiver, meeting the Australian country demands for Daylight-Recitation, and low battery consumption. It is replete with filtering devices, making for unsurpassed clarity of tone. Fitted with Jewell Voltmeter panel.

Price, £28
(Batteries, valves, speaker, and voltmeter extra.)

Stromberg-Carlson (A/SIA), LTD.

72-76 WILLIAM STREET, SYDNEY. "Phone, FL 4184.
FACTORIES: 76 WILLIAM ST. and 86 CROWN ST., SYDNEY.
Stromberg-Carlson

SERVICE BULLETIN No. 74

Model 732 Superheterodyne Radio Receiver

ALL-ELECTRIC, SIX VALVES AND RECTIFIER.

Audiola Model 493
Superheterodyne
ALL-ELECTRIC, THREE VALVES AND RECTIFIER.

STROMBERG-CARLSON 1-VALVE PORTABLE SET, NOW £16/10/- Complete. Modern circuit and design. Has terminals provided for attachment of outside aerial and earth wire when used at home. Completely shielded. Includes best Philips Valves and Batteries.

This 1928 model was being sold off at £10-10 in 1933.

American Stromberg-Carlson model 601
6-valve Neutrodyne as sold in Australia 1928

"Treasure Compact" in console cabinet 1928-29

"Treasure Chest" 1928

Stromberg-Carlson
AUSTRALIAN MADE Radio

THE WORLD'S LATEST AND BEST

(Ahead of Anything in Australia)

Do you realise you are being offered a genuine Stromberg - Carlson A.C. Receiver at the price of an ordinary set?

Price £27/5/- Complete
Speakers from £2/10/- up
the purpose. Initially these sets were not imported, probably because of their high price and instead Bean chose to produce a line of receivers of his own design, thus becoming one of Australia's pioneer manufacturers. By the end of 1923 Bean's firm had no less than five different models, plus one crystal set, on the market, all of which were sold under the name "Audiola".

The origin of this name is interesting because quite a different American firm, the Audiola Radio Co., had been making sets under this name since 1921. Whether Bean knew of this is a matter of conjecture and in any case the name was obviously not registered in Australia, otherwise he could not have used it.
The year 1927 was a turning point for Bean when he entered into a partnership with American S-C which resulted in the formation of Stromberg-Carlson (A sia) Ltd. Although some American receivers were imported, for example the model 601B, they were apparently too expensive for the Australian market as they were still being advertised over a year later. As managing director of the Australian firm, Bean obviously realised the need for something small and cheaper than could be obtained from the United States and that the only way to get such sets was to make them locally. So it was that in April 1929 advertisements appeared announcing a 3-valve plus rectifier metal-box model as “The World’s Latest and Best”, a set later referred to as the “The Treasure Chest”. Many years afterwards this same set was claimed to have been the first commercially produced all-electric receiver in Australia.

Only a month after the release of this first set no less than four different metal-box models, two AC and two battery-operated, were being offered, any of

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**Stromberg-Carlson**

Made in Australia

---

**A Triumph of Australian Engineering**

*NEW and... Exclusive Features*

It only requires a demonstration of these Stromberg-Carlson sets to realise the advance this well-known firm has made in the field of radio research. In the new Audiola 693 and the Stromberg-Carlson 633 you now get what radio lovers have looked for for many years. These receivers have definitely eliminated the old exasperating confusion of sound that jarred the nerves when changing from one station to another. You can now select your program in perfect silence, for between station muting automatically cuts out interfering noises. Visual and silent tuning simplifies the finding of your station—Automatic Volume Control minimises fading and allows reception from all stations at any desired strength. Call at Vealls—a demonstration will amaze you and—a demonstration entails no obligation to purchase.

---

**VISUAL ( AND SILENT ) TUNING UP GOES THE NEEDLE and there’s Your Station**

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Model 802B 8-valve 1933  
Model 833 8-valve 1933

---

Model 633 6-valve 1933  
Audiola 4-valve model 493 1933  
Audiola 6-valve BC model 693 1933
Radio Dealers are invited to write for Agency details

MODEL 56

£18-18-0

Stromberg-Carlson

Chrome-phonie RADIO

Gough, Gough & Hamer Ltd., 236 Tuam St., Christchurch, N.Z.

which could be slid into a console cabinet which was available as an extra. Probably the most interesting aspect of these Australian sets was that they bore practically no resemblance to any receivers made by the American firm, and this independent development remained a feature of S-C sets subsequently produced in Australia. In fact, so small was the American influence that the slogan—"There Is Nothing Finer Than a Stromberg-Carlson"—appeared to be just about the only thing they had in common!

Towards the end of 1930 the metal-box models were superseded by 3, 4 and 5-valve sets housed in wooden consolette-type cabinets which formed the basis of the following year’s line. From mid-1931 a new range of models known as the “Classic” series was introduced, all but one being AC operated. During this year most console models were advertised as being “convertible” which meant that a set could be converted into a radiogram by the fitting of a ready made record-playing unit mounted on a tray which fitted into a space provided under the lid of the cabinet.

In keeping with industry trends, all receivers produced up to this time had been TRFs, but late in December 1931, just in time to catch the Christmas trade, the first superhet was released. The production of this set, model 731, was quite a landmark in the history of Australian radio which put S-C right in the vanguard of progress. Even though the 731 was in effect a 1932 model, it arrived
on the scene well over a year before any competitors had a superhet on the market. This timelag was particularly noticeable in the case of AWA whose first superhets did not appear until 1933.

So far no mention has been made of component manufacture by Stromberg-Carlson. Early in 1931 a range of tuning condensers ranging in size from a single unit to a 4-gang was announced. Apart from use in the company's own receivers, these condensers were used by other set makers and were also available for general sale. In spite of their rather crude construction, the frame being made up of sections of thin aluminium rivetted together and with the rotor shaft bearing directly in holes in the end pieces, these condensers have stood the test of time remarkably well and can still be found giving good service in 1932 vintage radios. By the end of 1932, however, a completely new range of American style gangs known as type "D" was announced. This was followed in 1935 by newer and smaller designs such as the type "G".

Continuing with its progressive policy, Stromberg-Carlson swung completely to the production of superhets and at the beginning of 1932 became the first manufacturer to produce an all-wave set, the 5-valve, 3-band model 554. By the end of the year S-C became the first major manufacturer to produce a car radio, the model 572 "Roamer" which, somewhat surprisingly in view of contemporary American practice, did not have an RF stage.

Also in 1932 the name Audiola was reintroduced after an absence of many years. The first AC set to bear this name was the model 492, a 4-valve superhet in a chest-style cabinet. A similar 4-valve set, the 493, was produced in a full sized console cabinet. Because of the unusual circuitry of these models a word or two is included for the benefit of technically minded readers. As no multifunction valves had been developed at the time this set was designed, it was necessary to find a way of combining more than one function in at least two of the three "active" valves. The mixer presented no problem as the autodyne circuit could be used, but after that, what? Copying an idea first used by Crosley in the previous year, a type 247 valve was used in the dual role of biased detector and output pentode. It worked...after a style.

From this time on the firm went from strength to strength, becoming one of the country's largest radio manufacturers. For some reason an export trade to New Zealand was not established until 1935, the few Stromberg-Carlson receivers previously seen in this country being of American origin. However, hardly had the trans-Tasman trade a chance to get off the ground when import restrictions put an end to it. So, although S-C retained its position as one of Australia's leading producers in the years ahead, the name Stromberg-Carlson became only a memory to New Zealanders in the post-war years.

A final comment on pre-war S-Cs: for some reason the firm at one time developed a penchant for...
using odd-ball valves in their receivers, becoming positively addicted to 6F7s when some 1934 models used two of such valves at a time. The resultant zigzag signal path backwards and forwards across the chassis caused the wiring to resemble a rat’s nest and did not make servicing any easier. By 1938, however, receiver circuitry had become much more orthodox and remained so thereafter.

Another S-C foible was the habit of using a mixture of American type valves and Philips “P” base types in any given chassis, though to be fair, S-C was by no means the only Australian firm to indulge in this practice which as time went on became increasingly less common.

THOM & SMITH LTD

The firm of Thom & Smith was founded in December 1929 by two former employees of Stromberg-Carlson, F. P. W. Thom and J. E. Smith, who left that firm to commence business on their own account. For the first couple of years growth was fairly slow and only a few three and four-valve receivers were produced. Apparently to supplement their income, the partners in 1932 commenced to make certain components, such as wave-traps and valve sockets, which were advertised for general sale. It was at this time that the name “Tasma” was introduced.

In August 1932 the services of a Dutch-trained radio engineer—Y. F. Groenveld—were obtained. Groenveld was already known on the local scene, having previously been with Philips Lamps Ltd when that firm was first starting to set up radio production in Australia. It was under his direction that the first Tasma superhets were produced early in 1933. In 1934 the firm became a limited
company, by which time the name Tasma had become firmly established in the market-place. By 1935 E. M. Franeker had taken Groenveld's place as chief engineer.

As with most other manufacturers, 1933 was for Tasma the "superheterodyne" year; it was also the year that Tasma blossomed out with eight widely different superhet models ranging in size from four to eight valves. "Firsts" that year were: first DC mains model, first AC/DC model, first all-wave (4-band) model, and the production of a 7-valve de-luxe model with several advanced features which included twin speakers, AVC, and a visual tuning indicator operated by a saturable-core reactor: in June 1933 it was one of the first sets in Australia to have station callsigns marked on the dial scale.

Also in 1933 came the Tasma "Baby", a small 5-valve set housed in a distinctive "upright" style cabinet which was in distinct contrast to the American-style horizontal "chest" models of other manufacturers. A console version, model 180, was being advertised as late as October 1934.

Quite early on Tasma started to produce "private brand" sets and over the years this side of the business must have become an important factor. The earlier mentioned "Baby" model was one of the first in this category, it being marketed simultaneously by the British General Electric Co. under the name "Genalex". From this time on practically all Tasma models had counterparts in the Genalex range.

Another private brand was "Stannage", but sets under this name were sold only in New Zealand. John Stannage, who was then living in Auckland, had been wireless operator on some of Kingsford Smith's flights and his name was still remembered from those days. He commenced to import receivers from Australia during 1937, but the venture was short-lived, being hit by the introduction of import restrictions in the following year. In spite of this, a surprising number of sets have survived to become today's collectors' items.
Tuesday, August 4, 1936.

THE N.Z. RADIO TIMES.

DETAIL-BUILT
RADIO
EQUIPPED WITH
THE AMAZING NEW

FERRO COIL

For the first time we offer you AIR CONDITIONED Radios, and the amazing new FERRO COIL—positively shutting out overlapping interference—background hiss and "jittering."

READ WHAT EXPERT OPINION SAYS .............

"The Bulletin" (Sydney), May 20th., 1936.
"This Company believes in making receivers to withstand the ravages of misuse and time. The public pays a reasonable price and gets the best possible."

"The Wireless Weekly", February 21st, 1936,
Regarding "Tasma’s" sensitivity, says: "We cannot at the moment remember having seen the specifications of any other set with better figures than these."

A well-known New Zealand Main Town Radio Dealer writes us recently: "The Radiotrician states that it is the best set he has ever demonstrated, and he has been at it for six years."

NEW ZEALAND FACTORY REPRESENTATIVES:

N.Z. ELECTRICAL EQUIPMENT LTD.
WAKEFIELD CHAMBERS, WAKEFIELD STREET, WELLINGTON.

TELEGRAMS: "DYNAMIC." P.O. BOX 1050.

G. HENRY, George Street, Dunedin; W. BOARD, Levin; S. REEVE, Main Street, Palmerston North; D. H. PURDIE, Waitara; THOS. RITCHIE LTD., Hastings; J. H. SINCLAIR, Waipawa; LOCKYERS LTD., Napier; J. KENT, Wairoa; CLARE & JONES, Gisborne; L. V. MARTIN, Wellington.
Certain models of Philips radio players sold in New Zealand and presumably also in Australia, were made by Thom & Smith, these being mainly vibrator-operated sets required to fill in gaps in the Philips range at the time. An interesting technical feature of the earliest of these vibrator sets was that they used a Westinghouse "metal" rectifier in the HT supply.

Models 305, 310, 350, 365 (1936)

Stannage 8-valve AW model 440 1937

Stannage 5-valve DW model 510 1938

Tasma were also marketed in New Zealand under their own name, being imported by the firm N.Z. Electrical Equipment Ltd between 1935 and 1938, but did not become well known probably because of limited distribution which seemed to be confined to the Wellington area.

During the late 1930s Thom & Smith Ltd grew to become one of the larger Australian radio manufacturers, becoming a proprietary company in 1937. Radio manufacturing continued until the early 1960s.
WELDON 1938 Console Model RADIOS

The beautifully designed cabinets of these Console Models are in themselves powerful aids to sales. Allied to this is thorough workmanship, incorporating all the latest improvements of modern science, which has made the tonal quality and reception of each of these models absolute leaders in their class. That is why Weldon Console Models are increasing dealers' business everywhere.

AUSTRALASIAN RECEPTION.

AUSTRALIAN AND OVERSEAS RECEPTION.
MODEL 5/38D—5-valve, 240v. A.C. operation, with exclusive automatic telephone type dial. List price $25.00.

DESIGNED AND MANUFACTURED BY:

BLOCH & GERBER LTD.
WITH WHICH IS ASSOCIATED
WELDON ELECTRIC SUPPLY CO.
46-48 YORK STREET, SYDNEY
Phone: MA 6291 (9 lines)

WESTINGHOUSE

To complete the story of the three American giants, (see Australian General Electric) a few words about Westinghouse. This company established a branch in Australia which was originally known as Australian Westinghouse Co. Ltd, and, as in the U.S., the firm's main activities were in the industrial electrical field. In 1937 the Australian operation became known as Westinghouse Sales & Roseberry Ltd.

In 1936 the firm of E. F. Wilks Ltd was listed as distributor of Westinghouse radios, and in 1937, 1938 and 1939 as distributors of Westinghouse and Gulbransen radios.

Although listed as radio manufacturers in the Radio Trade Annual of Australia during the years 1936-1939, it appears that the sets marketed up to 1939 were actually made by the Electricity Meter Mfg Co. (Emmco). After this time radios bearing the name Westinghouse were made by AWA using standard chassis but different cabinets. However, the Westinghouse range was very limited by comparison.

The model numbers of these sets corresponded directly with those used by AWA except for the addition of a nought (zero) at the end of the numerals, thus AWA 63=Westinghouse 630, and so on. In addition the W numbers were prefixed with the letters "WR", presumably indicating Westinghouse Radio, as was done in the United States. Marketing of Westinghouse radios was not resumed after the end of World War II.
Every visitor to the Show should see and hear Westinghouse—the finest radio you can ever hope to hear.

There is a range of Models—both Consoles and Mantel Types—the superb cabinetry of which will charm you; but the most important of all you will be truly amazed at the acoustic perfection, fractional selectivity and recreation of personal performance that Westinghouse "Third-Dimension Radio" has achieved.

At the tips of your fingers you have any station you wish for the world over, with clarity and volume that will astonish you.

All Electric—or The Very Latest "Air Cell," Vibrator and Battery-Operated Sets

<table>
<thead>
<tr>
<th>CONSOLE (as illustrated)</th>
<th>MODEL 157 (Broadcast)</th>
<th>MODEL 257 (DUAL WAVE) ELECTRIC. Five New Type Valves. Height, 2 ft. 11½ in., x Width, 1 ft. 11 in., x Depth, 12½ in.</th>
</tr>
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<tbody>
<tr>
<td>MANTEL MODEL 756 (as illustrated).</td>
<td>— BROADCAST or DUAL WAVE. Electric Five Latest-Type Valves. Edgell Straightline Airometer Tuning. Height 13½ in., x Width, 11 in., x Depth, 9 in.</td>
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See these and other Westinghouse Models at Royal Show Stand—No. 132

SMALL DEPOSIT—EASY TERMS

Dealers in all Country Centres. Distributor for Victoria:—1937

A.P. SUTHERLAND

Queen's Bridge (2 Maffra Street) Melbourne S.C. A — Phone M.2291

City Showroom: "REGENCY HOUSE," 202-4 Flinders Lane — St. Paul's Cathedral
Some Other Australian Manufacturers

Wireless Weekly, June 2, 1933

Circuit for the 1933 Standard Superhet
Supplement to Wireless Weekly
Friday June 2nd 1933

The circuit of the Famous Wireless Weekly
1933 Standard Superhet was used by several
Australian radio manufacturers.

Airmaster 6-valve BC
model D36 1935

Airmaster 4-valve BC
model M30 1935

Airmaster 4-valve BC
model T30 1935

Airmaster 5-valve BC
model C35 1935

Batyphone 4-valve battery.
Made in Western Australia c.1937
Aristocrat Radio is "thoroughbred"... in manufacture... operation... appearance... performance. All modern developments in Radio are incorporated in Aristocrat 1935 Receivers. The new Aristocrat system of velvet tuning ensures simplicity and ease of operation. Aristocrat Radio is presented in cabinets of unexcelled beauty, in keeping with outstanding performance.

You may select any model from the complete range of Aristocrat Receivers and be assured of full satisfaction.

DISTRIBUTORS:

ELECTRIC SERVICE CO.
Newcastle

TRACKSON BROS., PTY., LIMITED
Brisbane

CARLYLE & COMPANY
Perth

MccANN BROTHERS
Hobart

The above three are 1937 models.

ELECTRICAL SPECIALTY MANUFACTURING CO. LTD.
17 GLEBE STREET, GLEBE, SYDNEY

Designed by
Mr. O. C. TURNER,
M.I.E. (Aust.) A.M.I.E. (U.S.A.)

Manufactured by
ELECTRICAL SPECIALITY MANUFACTURING CO.
LTD.,
17-19 Glebe Street, Glebe.
Phone: MW2297.

Distributed by
P. & R. WILLIAMS LTD.,
74-78 Wentworth Avenue, Sydney.
Phone: M4668.

SOLE DISTRIBUTORS FOR N.S.W.

TRADE INQUIRIES INVITED

Phone: M4668

Phone: MW2297

Model 201 SW converter

Terms arranged

The E.S.M. de luxe Console as used with all models.

DESIGNED WITH INDISPERSIBLE QUALITY

Model 46, 5-valve Superhet.
£25/10/-
Introducing the 1929 "Genwin" Show Box

Eclipse "Univox" 5-valve BC 1933
Eclipse "Univox" 5-valve DW 1934

Operatic 4-valve 1935
Olympic Five 1935
Olympic Six 1935
Olympic 5-valve AW 1934

Eclipse "Univox" 5-valve DW 1934
Olympic 7-valve AW 1934
Olympic 7-valve AW 1934

Olympic Eight 1935
NST Hollingsworth 8-valve AW model 841 1934
NST Hollingsworth 1935
NST Hollingsworth 1935

89
A.G. HEALING LTD.

Melbourne Sydney Adelaide

Featuring the amazing Projectographic Dial.

Ask any of the thousands of Healing owners how he likes his receiver... he will wax enthusiastic over its beautiful, golden-voiced tone and remarkable freedom from service troubles. This is the reputation which Healing has built up, year by year, since broadcasting began. It is a reputation that can build MORE receiver sales for you. Ask for franchise details.

... is the radio with the RIGHT Reputation
HEALING

Healing 6-valve battery set model 65E 1934-35
Healing 5-valve DW model 447 1937

Healing 5-valve DW model 525E 1940

HEALING RADIO

GOLDEN VOICED

HIS MASTERS VOICE

HMV 4-valve BC model 451 1940
HMV 4-valve BC model 451 1940
HMV 6-valve AW model 719 chassis 635A 1936
HMV 6-valve AW 1936 model 720 chassis 635A 1936
Control is by illuminated dial fitted to steering column.

In car radio more than anything else, it pays to sell the best—and that means "Bosch"!

Pyrox car radio has been proved right under all conditions—it is the set you should sell!

Write for Dealership Proposition.

PYROX PTY. LTD.

Pioneers of Car Radio in Australia.

264 Latrobe Street, Melbourne.  
'Phone: F.4157.

205 CASTLELEAGH STREET, SYDNEY.  
'Phone: MA.1941.

--

Precedent 5-valve BC model F34 1934

Precedent 5-valve BC model F35A 1935

Peter Pan 3-valve model CLP 1948

Precedent 5-valve BC model F35T 1935

Price's "Aristocrat 3" 1931. Clock in front, speaker in top

Dial escutcheon of 1934 models showing tone and volume indicators

Ravision 455D 1935

Ravision 455 1935

Ravision 5-valve AC/DC model 545 1935

Peter Pan 3-valve model CLP 1948

Precedent

Sell Precedent for Preference

92
Silvatone 4-valve model 4B 1935

Silvatone 5-valve model 5B 1935

Sterling "Gloucester" 1935

Sterling "Plymouth" 1935

Sterling 5-valve DW 1935

Sandel 536 1935

Salonola 5-valve SG 1931

Salonola 4-valve SG 1931

Salonola 3-valve radio with clock 1931

Salonola 5-valve superhet 1932

Salonola 4-valve SG 1931

Silvatone 5-valve model 1935

Sterling 1936

Salonola 5-valve SG radiogram 1931

Seland 536 1935

Salonola 4-valve SG 1931

Sterling 1936

Salonola 5-valve SG radiogram 1931
A RANGE
for every requirement . . .

"SYMEFONA" RADIO

With many years of experience behind their design and manufacture . . . employing only highest grade components—this—coupled with competitive prices gives you utmost value, a range that will sell well and STAY sold, and will make for you profits that are REAL profits.

Country and Interstate dealers are invited to write for our illustrated catalogue and particulars of discounts, etc.

Every modern improvement in battery receiver design including pentagrid converter and class "B" amplification is incorporated in the model 70—6 valve 2 Volt battery set (depicted below). Extremely economical on "A" and "B" batteries using only .55 amps on 2 volts with a drain of 7 milliamps off signals. Wonderful day-light range. Highly polished cabinet.

Illustrated above is model 50, a 7 valve All Wave Superhet capable of particularly fine performance on short wave and broad-spectrum bands. Fitted with latest type Auto and beautifully lustre finished cabinet.

Illustrated below is model 10, a 5 valve A.C. Midget Superhet. Full sized components, ignited dial drive, in a handsome polished cabinet.

Model 20, 5 valve Superhet Console, A.C.
Model 20, 5 valve Superhet Console, A.C.
Model 60, 5 valve Superhet, Universal A.C. D.C.
Model 30, 6 valve Superhet Console A.C.
Model 30, 5 valve Superhet Auto Radio.
Model 70, 6 valve Superhet Battery.
Model 60, 7 valve Superhet All Wave, A.C.
Model 40, 8 valve Superhet Console, A.C.

"SYMEFONA" RADIO MANUFACTURED BY

W. A. SYME & CO.

Braefield Buildings, Bourke & Liverpool Streets,

SYDNEY, N.S.W.

F 2730

FL 2463

1934

RADIO INSTRUMENT PANEL OUT OF SIGHT

CONTROL ON STEERING COLUMN

ENJOY THE THRILL OF—

Radio in Your Car

No car interference . . . no additional battery . . .
Interstate reception . . . knife edge selectivity . . .
Every Model a Sensational Success!

If you are one of the thousands who have waited for something richer and finer in Radio—something offering more than the usual in value and quality—here is your wish answered!
The new Seyon range of radio receivers—tested, proved and perfected—are creating a sensation. Everything modern and most desirable is incorporated in these sets. They are electrically operated—though battery models may be obtained if desired—control dials are illuminated, dynamic speakers are fitted to the console models, and all cabinets are refreshingly new in design and beautifully finished.
You can see the beauty and excellence of these receivers at our Radio Show Stand, but to hear and judge their wonderful tone you need a demonstration in your own home or in our radio salon. May we arrange this for you?

EASY TERMS GLADLY ARRANGED.

Radio Show Stand Number 9

NOYES BROS
(MELB.) PTY. LTD.
597 Lonsdale St., Melbourne
119 Pirie Street, Adelaide
36 Argyle Street, Hobart
59 George Street, Launceston

Model 62DF 5-valve BC 1935

Model 25M 5-valve BC 1935

"Superhet Six" 1933

5-valve BC 1935

5-valve BC 1935

Truvoice Junior 3-valve SG 1931
SECTION TWO

New Zealand

INTRODUCTION TO THE NEW ZEALAND SECTION

In this section the aim has been to provide an historical record of the many and varied models produced by this country’s manufacturers over the years by illustrating as many as possible of the total. Some readers may be surprised to learn how many different models there were, and they may also be surprised to learn how many different brandnames there were. When the very large numbers of imported sets are included, the total number of brandnames which appeared on the New Zealand market at one time or another is quite staggering. Furthermore, it is surprising to find how many of these sets have survived to become present-day collectibles, and the end is not in sight.

Since publication of the previous book, more N.Z. brandnames have come to light, so rather than list them as an addendum a completely new list has been included at the end of this section. Many of these names have been provided by eagle-eyed members of the N.Z. Vintage Radio Society who have taken the trouble to send them in.

A not infrequent complaint voiced by present-day radio collectors, often in respect to N.Z. radios, is — “Why didn’t they put the model number on the chassis?” Why, indeed! Not that lack of such identification was peculiar to locally made sets. The answer, at least in the case of many small pre-war manufacturers, is simply that there weren’t any. Model numbers, that is. But even if there had been, it wouldn’t have done any good because said manufacturer never issued such a thing as a circuit diagram. Perhaps it is even more frustrating to find a set which does have a model number but, for reasons best known to himself, the manufacturer did not see fit to mark the number on the chassis. And to add insult to injury, some manufacturers’ service sheets contained the words—“When ordering spare parts always quote the model number”. Ho, Hum!

AKRAD RADIO CORP. and PYE LTD

The brandname originally used on radios made by Akrad was “Futura”, but after 1940 the name “Pacific” was substituted. Although the Pacific name had previously been owned by another company, Pacific Radio Ltd, it was then out of use due to the demise of the former owner. Upon recommencement of radio manufacture after the war, Akrad continued to use the name Pacific, and in addition introduced the name “Regent”. These two names continued to be used side by side for the same models until 1953 when Pye came on the scene.

With the launching of Pye radios on the N.Z. market Akrad’s two earlier brandnames were
discontinued and the name “Clipper” was introduced, mainly for use on low priced unfranchised sets, though in some cases Clipper sets were directly equivalent to certain Pye models. A third brandname, used for a short period after 1959, was “Astor”. This name was of Australian origin and its use by Akrad came about as a result of the takeover of Radio Corporation of N.Z. by Pye/Akrad at this time.

- **Everest 4-valve model 4M7** uses external batteries 1947
- **Invincible 5-valve BC model 5M7 1947**
- **Aladdin 4-valve BC model 4B1 bedlamp radio 1951**
- **Regent 5-valve BC model 511 1951**
- **Pye PZ60 6-valve BS model “H” 1953**
- **Astor 5-valve model JFU 1956**
- **Pye 6-valve BS model PZ109 1959**
- **Clipper 5-valve AC & battery model 6P6 1955**
- **Pye 5-valve BS model PZ42 1955**
- **Pye 5-valve AW model PZ103 1957**
- **Pye “Tonemaster” 6-valve BC model PZ309 1965 (made at Ultimate-Ekco, Quay St factory)**
To see what's new and beautiful in radio— to see the greatest values, the finest quality— just walk through the door into your Bell dealer's showroom.

No matter what you've decided to pay for your set, no matter what style you're looking for, you can be certain that Bell dependability is built into every part of its chassis— every inch of its cabinet work. You get that famous quality that makes more people buy Bell than any other radio.

**BELL**
Radio-Television Corporation Ltd.

**Hi Fi RECORDERGRAM**
Unsurpassed for sheer tonal fidelity. A 15 valve unit of 10 watt output, in an acoustically designed walnut cabinet puts this console in a class by itself.

**Debonaire**
A stylish veneer Stereogram to harmonise with most furnishings and producing a depth and quality of reproduction that will really please you.

**Chairside**
Of compact modern design and with a performance that will delight you, the Chairside brings you luxurious listening at low cost. A matching companion unit available for Stereo.

PRICES OVERLEAF
DESCRIPTIONS AND PRICES OF BELL MODELS

AS ILLUSTRATED OVERLEAF

REGAL Stereogram £149.10.0. Walnut veneer — 14 valves — output 12 watts. Two 8" Hi Impedance speakers — separate bass, treble and balance controls.

AMBASSADOR Stereogram £142.10.0. Walnut veneer — 14 valves — output 12 watts. Two 8" High Impedance speakers — separate bass, treble and balance controls.

HI-FI Stereogram £135.0.0. Walnut veneer — 14 valves — output 12 watts. Two 12" and two 6" x 4" speakers — separate bass, treble and balance controls. Frequency range 25 cycles to 15 Kc/s.

DEBONAIR Stereogram £83.0.0. Walnut veneer — 6 valves — world wave. Two 8" speakers — separate bass, treble and balance controls.

CONTOUR Stereogram £76.10.0. Walnut veneer — 6 valves — world wave. Two 8" speakers — separate bass, treble and balance controls.

HI-FI TAPE RECORDERGRAM £189.10.0. Walnut veneer — 15 valves — 10 watts output. Special 12" Hi-Fi speaker — frequency range 25 cycles to 15 Kc/s. Truvox Mk IV tape deck — latest UA12 B.S.R. Changer.

CHAIRSIDE RADIOGRAM £69.10.0. Veneer — 5 valve push-pull — 6 watts output. One 8" and one 6" x 4" speaker. Frequency range 40 cycles to 15 Kc/s.


OTHER BELL MODELS ADDITIONAL TO THOSE ILLUSTRATED OVERLEAF

MANTEL RADIOS


EXPLORER £15.15.0. Five valve world wave mantel in smart plastic cabinet. Choice of seven colours.

PLANET £16.11.0. Built-in aerial. Australasian reception. In speaker selected blonde or medium oak.


PORTABLE BATTERY OPERATED MODEL


PORTABLE Battery Operated RADIOGRAM


CAR RADIO £16.16.0. Packed with power. Permeability tuning. 6" x 4" speaker — low battery drain.

TABLEGRAM


ELECTRIC PORTABLE PLAYERS AND RADIOGRAMS

SLENDERLINE £17.17.0. Rexine covered. Four speed player with amplifier. 6" x 4" speaker.

SLENDERLINE RADIO PLAYER £29.17.6. As above but fitted with radio.

MUSICALE £35.0.0. Two-tone rexine covered. Modern styled radiogram with latest fully automatic 4-speed changer. Four valve. 6" x 4" speaker.


MAJORETTE COMPANION £14.17.6. Identical in outward appearance to the Majorette, this attractive amplifier unit complete with speaker, brings you surprisingly good stereo when used in conjunction with the Majorette or Musicale.

CONSOLE STEREOGRAMS

STRAUSS £69.10.0. Blonde or medium oak. Six-valve world wave. Two 8" speakers. Separate bass and treble controls.

COSMOPOLITAN £69.10.0. Blonde or medium oak. Six-valve world wave. Two 8" speakers — separate bass and treble controls. As a 5-valve broadcast £59.17.6.

TRUETONE £79.10.0. Blonde or medium oak. Six-valve world wave. Two 8" speakers — separate bass and treble controls.

CAVALIER £73.10.0. Blonde or medium oak. Six-valve world wave. Two 8" speakers — separate bass and treble controls.

CONNOISSEUR £87.10.0. Walnut veneer. Six-valve world wave. Two 8" speakers — separate bass and treble controls.

STEREO COMPANION MODELS £22.10.0

Further "ADD ON" units are available to match existing Bell Radiograms, i.e. Chairside, Ego, Truettone and Strauss.

Each unit consists of a cabinet which contains an amplifier, 8" speaker 16" x 4" in Chairside and separate volume, bass and treble controls.

BELL

RADIO-TELEVISION CORPORATION LIMITED

274 DOMINION ROAD, AUCKLAND
Bell commenced business in 1950, taking over from the earlier Antone Radio Co. For the next twenty years small plastic cased radios continued to be churned out. The number of different models which used the same cabinet were the 5-valve "Colt", the 3-valve "Champ", the 3-valve "Cadet" and a 4-valve version of the Colt using a solid-state rectifier.

Then there were wooden cased versions of the Colt with cabinets of solid oak, oak veneer and walnut veneer. A 5-valve dual wave model was also available and was normally supplied in a walnut veneer cabinet, when it was known as "The Planet".

All in all quite a remarkable production record for any small radio, which ended in 1967 when a transistorised version known as the "Solid State Colt" was marketed.

The cabinet die used for locally moulding the plastic cabinets came from Australia where it had originally been used to produce the same cabinets for Airzone. Because the Airzone model did not have a tone control it needed only two controls, but as the Colts had three controls it was necessary to provide an extra hold in the cabinet front in the space originally provided for the Airzone decal.

At the end of World War II Collier & Beale Ltd, in common with others in the industry, picked up the threads of peacetime production and had their first post-war sets leaving the factory in 1946. Subsequently, quite a large range of models was marketed under the (unfranchised) Pacemaker name.

In the early post-war years C & B continued their policy of supplying private-brand sets to the few remaining customers, the Electric Lamphouse (Ensign) and His Masters Voice (HMV) being two of them. The existing names Cromwell and Gulbransen were carried on as brandnames for franchised dealers for a few years but both were discontinued after 1958.

In 1955 an important change in the company fortunes occurred when the General Electric Co. of England (GEC) acquired a majority holding. One noticeable effect of this change was reflected in the different manufacturing policy introduced. For example, where C & B had always used heavy gauge cadmium plated steel chassis they now used thin tinplate. This was obviously a cost cutting procedure which extended to such things as using 100-volt working capacitors in place of the formerly used 400-volt types. Needless to say, reliability dropped sharply as a result.
Another change occurring after 1956 was the introduction of model names in place of model numbers. Prior to this any names used, for example “Petit” (model 5155), were simply telegraphic codewords, the only exception being the 1949 "Little Jewell" (model 518N). It is true that in pre-war days there were a few model names used, for example the Radion “Little Aristocrat”, “Parliament”, “Elstree” and “Rugby”, but these were exceptions.
The QUALITY of these Radios can be relied upon as representing the highest degree of achievement in the radio world. Cromwell Superheterodynes are the result of intensive research, experimentation and acoustic engineering, the use of highest grade materials, scientific matching, and careful and accurate assembly by experts. You owe it to yourself to hear the new Cromwells. Compare them side by side and point by point with other instruments. Compare for purity of tone, for faithfulness of reproduction, for unequalled value—then let your own good judgment decide.

SPECIAL FEATURES
Full Size 8in. Highest Grade British Dynamic Speaker, not the small size usually employed in sets of this price.

Very Latest Valves. First N.Z. Made Set to employ the latest 2B7 and 2A5 Valves, which give very much improved all-round performance.

Separate Oscillator Valve is employed as used in higher price receivers.

Full Range Tone Control, with complete graduation of Tone from low bass to brilliant highs.

Automatic Volume Control eliminates blasting when tuning, also reduces fading to a minimum.

Built to comply with all N.Z. Public Works Department regulations.

Ask us to Arrange for a Demonstration in Your Home
Equally dependable low-priced Model F2—5-VALVE BROADCAST MANTEL MODEL, using Modern Superheterodyne Circuit and employing latest types Valves, 4-in. Aeroplane Dial and 8in. Operadio Speaker. Design and performance place this Set definitely apart from ordinary mantel type broadcast receivers.

Cat. No. ER854  ... £17/10/-

7-VALVE ALL-WAVE STREAMLINE MANTEL—With push button tuning and with 8in. speaker.

Cat. No. ER857  ... £37/10/-
ENSIGN RADIO

The Sensation of a Decade!

For 1939, ENSIGN brings you a vast array of fine new radio receivers—brand new models incorporating the very latest developments from the world's leading radio laboratories. ENSIGN gives you new features that add to ease of operation . . . to long distance-reach . . . to tone quality . . . and to long-life dependability. Even more than ever before, the ENSIGN line is the ideal choice for every requirement. In every price range, in every type of circuit design and cabinet styling, ENSIGN again leads the way. The rugged chassis is typical of the construction of all ENSIGN radios. Its high-grade component parts, extra safety factors, and solid stability result in long-life and trouble-free service anywhere. Skilful design, careful assembling, plus one of the leading radio plants, and rigid standards of testing, all combine to assure you of the finest radio receivers modern science can produce. Thus again in 1939—with this magnificent new radio line—ENSIGN proves its supremacy—renews its reputation as "The Choice of N.Z."

HELP BUILD A NATION!
ENSIGN RADIOS ARE MADE IN N.Z.

ENSIGN 6v. DUAL-WAVE MANTEL MODEL.
Chassis—An attractive 1939 model with exceptionally clear full-vision dial illuminated in two colours. Modern smooth tuning automatic volume control. 8 in. Operadio electro-dynamic speaker. Superb foreign reception and outstanding tone distinguish this receiver.
Cabinet—Cabinet is of modern design and is finished with the best of walnut veneers.
Tubes—Kenrad 80, 42, 6B7, 6D6, 6A7, 6D6
Size—Height, 11in.; width, 19in.; depth, 81/2in.
Cat. No. AR908

£24

ENSIGN 6v. DUAL-WAVE CONSOLE MODEL.
Chassis—Similar to that used in Cat. No. AR908.
Cabinet is of most modern streamline design, incorporating both high-grade material and workmanship.
Tubes—Kenrad.
Size—Height, 36lin.; width, 28lin.; depth, 13lin.
Cat. No. AR909

£31/10/-

ENSIGN 6v. DUAL-WAVE RADIOGRAM.
Chassis—This model incorporates the same chassis as Cat. No. AR908. Fitted with Collaro motor and pick-up, it is a model that should command much attention.
Cabinet—Large type mantel cabinet, automatic tip-up lid.
Tubes—Kenrad.
Size—Height, 13lin.; width, 23lin.; depth, 14lin.
Cat. No. AR1010

£34/10/-
AS Mantel Cabinet. Approx. site Il ,, D. 81in. 1940
Pacemaker 5-valve BC model 5MO 1940

Pacemaker 5-valve BC model 515 1945

Pacemaker 5-valve BC model 519 1949

Pacemaker 5-valve BC model 518P 1948

Pacemaker 5-valve BC model 617P 1946

Pacemaker 6-valve BC model 618P 1948
It had a tuned RF stage but an untuned mixer.

Pacemaker 4-valve BC model 4153 1953

Pacemaker 5-valve BC "Bonavista" 1960

Pacemaker 5-valve BC "Little Aristocrat" 1935

Radion 5-valve BC "Little Aristocrat" 1932

Radion 5-valve BC "Little Aristocrat" 1933

Radion 6-valve DW model 6AW 1936

Radion 5-valve BC 1936

Radion 5-valve DW 1935

Radion 5-valve BC 5AV 1955-36

Ensign 5-valve DW 1941

Pacemaker 5-valve AC/Battery 1949

Pacemaker 7-transistors "Transportable" 1957

Radion 6-valve DW 1935

Pacemaker 6-transistors "Transistorised 58" 1958

Radion 5-valve BC 1935
Announcing the New RADION models for 1937

Again Radion leads in Quality, Value and Performance for 1937. Amazing new performance... high sensitivity to bring you the greatest possible enjoyment of station... high selectivity to separate the best stations... modern refinements and improvement... all this, briefly, is what you can expect in the new 1937 Radion models. See the brilliant range of 1937 models at any Radion dealer—price range from £9/10/-.

RADION gives the most liberal guarantee... gives you full protection for 12 months.

A RADIO IN EVERY HOME

is the expressed wish of the Prime Minister

By introducing the

PARLIAMENT Model...

RADION is the Aristocrat

makes possible

A RADIO IN EVERY HOME

By introducing this new and inexpensive radio, priced at £9/10/- cash or obtainable on the easiest of terms, RADION makes possible the Government's expressed wish of a radio in every home, which bids fair to become "A Radion in Every Home."

Not only was this exceptionally priced "Parliament" RADION designed with the idea of it being purchasable by even those on modest incomes, but it guarantees—true to the name Radion synonymous with quality—perfect reception of national stations. Every part of the "Parliament" superheterodyne is built and assembled to the same high standard that has made the name Radion synonymous with quality.

Todd Motors Ltd., or any one of the authorized RADION dealers below will gladly let you hear the "Parliament" model, the easiest-buy radio in New Zealand.

TOTAL CASH PRICE £9-10-0

The "Parliament" was a 4-valve superhet marketed in 1936.

A Radion in Every Home makes possible

The "Parliament" was a 4-valve superhet marketed in 1936.

RADION LTD.

1936

107
This firm was set up in 1939 expressly for the purpose of manufacturing Philco radios in New Zealand, but the outbreak of World War II soon halted production. Philco radios produced in the early post-war years were in many cases almost "carbon copies" of pre-war models, an example being the 155, an 8-valve 3-band set of 1945 which was almost identical to the 1941 model 157. As in pre-war days, the use of chromium-plated chassis was initially continued, but within a year or two had ceased.

The use of American-style model numbering which incorporated a year of issue indicator had been introduced in 1941, as in the case of models 41-710 and 41-722 for example, but was not continued with after the war; in fact the American influence on local production waned steadily from this time onwards and by the early 1950s had almost vanished.

PHILCO RADIOS

Up to 1956 only Philco radios had been made by Dreco, but at this time a new unfranchised brandname, "La Gloria", was introduced, initially for the purpose of marketing a line of low priced radiograms. A limited range of radios was also sold.
under the La Gloria name over the next few years. On the other hand, the name Philco had, by 1962, been withdrawn from the market-place and to counter this loss a "new" name "Majestic", was introduced in its place. Although also seen on television sets, this name did not remain in use for long and had disappeared by 1965. Another brandname, used only on portable record players, tape recorders and transistor radios, was "DRECO", but this name also soon disappeared.

**HIS MASTER'S VOICE N.Z. LTD**

Before World War II HMV had imported nearly all the sets sold by them, only a very few being of local manufacture. In the post-war years they continued to make radios and radiograms in their Wellington factory until 1957, during which period approximately 62 different models were produced. In addition there were 10 models made by other manufacturers, mainly Collier & Beale.

An unusual pre-war model of 1939 vintage was a 2-valve TRF which had the distinction of being the smallest set made in New Zealand in those days. A set to have what must have been the most unusual cabinet styling seen in this country was a 1946 5-valve model housed in a mirror-glass cabinet, or rather it had a wooden cabinet overlaid with mirror glass. It remains the only locally made example of its type.

Commencing in 1945, a system of model identification using three numerals followed by one or two letters was introduced. In this system the first two numerals indicated the year of design, rather than the year of issue, though these two dates often coincided, of course, while the third numeral indicated the number of valves employed. In addition various letters were used as suffixes to distinguish different models having the same number of valves but made in the same year. These suffixes were:

A = used to distinguish between two models
AW = all wave, D = dual-wave, S/B = band spread,

P = portable, R = car radio, R/G = radiogram
RP = record player (without radio), C/RG = radio
with auto changer, T/RG = table model radiogram.

Examples of the complete coding are: 465 = 1946 5 valves, 465D = 1946 5-valve dual-wave, 467SB = 1946 7-valve bandspread, 526 D/CRG = 1952 6-valve dual-wave gram with auto changer.

Commencing in 1947, model names were assigned in addition to model numbers and this practice was continued right through to the end of receiver production. Unfortunately for those concerned, then as now, HMV did not mark model numbers on chassis made prior to 1948 which made identification difficult unless one had a set of service manuals. These manuals were particularly useful as, in addition to the usual technical information, they contained pictures of each model.
The need for an improved system of coding was apparent by the end of 1952 when there were no less than five different 5-valve models issued in that year. Commencing towards the end of 1954 a new model-coding system was introduced which consisted of four numerals only without any suffixes. In this system the first two numerals indicated the year of issue and the remaining two indicated serially the number of models issued that year, with subsequent issues being numbered 5402, 5403 and so on.

After 1957 HMV ceased manufacture and had sets supplied by other firms such as Akrad, Green & Hall and Philips.
JOHNS LTD—WELLMADE LTD

Although Johns Ltd had established a separate factory in 1928 they did not commence using the brandname "Well-Mayde" until 1931. Even then this name never appeared on the front of any sets; it was to be found only on a nameplate on the chassis. In 1933 the name "Companion" was introduced in its place and remained in use thereafter.

A simple system of chassis model coding was introduced in 1931 which indicated the number of valves used and the year of issue:

- WM31 3 valves (plus metal rectifier) 1931
- WM61 6 valves (inc. rectifier) 1931
- WM81 8 valves (inc. rectifier) 1931

Cabinet styles were given model names and it is interesting to note, that for the years 1931 and 1932 Maori names were chosen, these being Ariki, Kiwi, Rangatira and Tui.

A slight alteration to the coding occurred in 1932 when the letters "WM" were changed to "SG" to indicate Screen Grid, an important sales feature at the time. As yet all models were still of the TRF variety, superhets not appearing until 1933 when the coding was changed once again by dropping the first two letters. By 1935, with the advent of shortwave coverage, the suffixes BC, DW and AW were added to the model numbers thus: 65BC, 65DW and so on; later "AW" was changed to "TW" to indicate Triple Wave. For some reason that year's system applied only to AC models, battery sets being assigned model names only.

ALTONA GRAND CONSOLE.

Challenger Electric 3
3-valve AC 1930

W-M "World" 4-valve short-wave 1931

W-M "Ace" 3-valve AC model 31 1931

Well-Mayde crystal set 1929-39

“Meniwave” 4-valve dual-wave 1928

Read remarks on ALTONA GRAND, most of which apply to the ALTONA.

The ALTONA is also a five-valve set, of similar design to the ALTONA GRAND, and constructed with equal care.

COMPONENTS:

While its components are not of the extra high quality of the ALTONA GRAND, all apparatus used in it is guaranteed to be perfectly reliable (see our guarantee below), and much better than that used in similar sets costing half as much again.

RANGE, ETC.

It is as easy to install and operate as the ALTONA GRAND, and as regards tuning, tone, volume, etc., only slightly less perfect. Results obtained by large numbers of satisfied customers fully justify the claims we make for its excellent performances.

GUARANTEE.

ONE YEAR, as per conditions on page 1.

PRICE (less accessories). £16.10.0.

Standard Accessories (see page VI). £17. The cheapest "Quality" five-valve monoclype on the market.
Because most Companion radios were available in a choice of cabinet styles, it is not possible to identify a particular model solely from the appearance of the cabinet. 1936, 37, 38, 39
WELL-MAYDE

"Rangatira" 6-valve SG
model WM61 1931-32

"Tui" 5-valve SG 1931

Model SG62 6-valve SG 1932

"Rangatira" radiogram 1931

"Ariki" 8-valve SG
model WM81 1931

"Rangatira" console
6-valve SG 1931

"Champion" 5-valve
neutrodyne 1932 battery set

"Cambridge" 1933

Companion model 65
6-valve 1935

Companion 63
"Cambridge" 1933

Companion model 53
5-valve 1933

Rangatira Console
A Beautiful Example of Cabinet Craft.
Price - - £27 15s.
PHILIPS IN NEW ZEALAND

Although most of the Philips and Mullard receivers illustrated here are examples of N.Z. made sets; a few British and Dutch models have been included for the sake of convenience in presentation.

Philips commenced radio manufacture in this country on a small scale in 1939 but the factory output was soon affected by wartime conditions and, in common with other local manufacturers, they

---

930A and 932A 1930-31. Which is which?

932A rear view

Type 2502 4-valve short-wave model 1929

Type 2510 in console cabinet 1930

Type 2611 moving-coil speaker 1929

Type 336A 6-valve AW superhet 1933. Made in Holland

Chassis view of 336A

PHILIPS STAND AT WELLINGTON RADIO EXHIBITION (Aug. 1929)

IMPORTED PHILIPS
were compelled to cease production early in 1942. Prior to opening their own factory a few models had been "made on behalf" by the Radio Corporation of N.Z. between the years 1934-36, such sets being required to fill gaps in the imported range. Likewise, a few sets were imported from Australia at much the same time. Following the end of the war, all Philips and Mullard radios sold in this country were locally produced; the last valve-operated model being marketed in 1969.
The Columbus brandname was introduced in 1937 as a "house" brand following a change in company policy which saw all previous "private" brand production, with the exception of Courtenay, phased out. From then on nearly all models produced by Radio Corp. were marketed under both brandnames, though Courtenay was not so widely distributed as Columbus and never became as well known. In pre-war days the cabinet styles of the two brands differed considerably but in later years the differences were generally not so pronounced. Nearly all models were marketed under both names, though there were one or two exceptions.

An interesting Columbus set made in 1939 was Model 24 5-valve BC 1937

Note use of woven metal grille.

Model 84 6-valve BC 1938. Note use of woven metal grille.

Model 35 5-valve DW 1938

Model 97 5-valve BC, AC mains and vibrator 1938

Model 60 5-valve DW 1939

Model 69 6-valve 3 band 1941

Model 54 6-valve BC with push-button tuning 1939

Model 172 7-valve DW 1940

Model 66 6-valve DW 1941-46

Model 69 6-valve 3 band 1941

Model 36 7-valve DW 1938

Model 59 5-valve DW battery set 1939
The modern cabinet design illustrated above is one of the alternative cabinets housing Columbus All-wave models 38 (7-valve), 43 (9-valve), 77B (7-valve, battery-operated). Note the "louvre" effect covering the speaker aperture scientifically designed to give an even distribution of tone volume. For specifications see overleaf.

A GENUINE PRODUCT OF RADIO CORPORATION OF NEW ZEALAND LIMITED

COLUMBUS RADIO
Model 6 5-valve BC 1946. It had a metal cabinet with a plastic front.

Model 90 7-valve BS "Conroy" cabinet 1943-47

Model 14 5-valve BC in "Gainsborough" cabinet 1947

Model 27 5-valve DW 1949

Model 91 9-valve BS 1950

Model 4 5-valve BC with clock 1952

Model 5B 5-valve BC 1954

Model 14R 5-valve BC in "Raeburn" cabinet 1947

Model 166 6-valve DW uses RCNZ gram unit 1949

Model 402 6-valve AC/Battery 1948

Model 166 6-valve DW in "Balfour" cabinet 1949

Model 91 in "Flotilla" cabinet 1950

COLUMBUS RADIO

the 10-valve model 88 all-wave console which featured a special Philips low-noise RF valve, EF8G, and had variable IF selectivity together with motorised push-button tuning which could be remotely controlled. It was one of only three models which had a push-pull output stage. Altogether a most impressive, not to say unique, combination of features.

Two top-of-the-line models, marketed in both brands, were the 90 and 91. The former was a swept up version of the earlier 75, while the 91 was a 9-valve model having push-pull output. This latter feature was rarely used by Radio Corp., in fact apart from the above mentioned 88, only one other set, the 13-valve high fidelity model 99 of 1946, had a push-pull output stage.
Although small numbers of transistor radios were produced from 1957 on, by 1960 radio production at the Wellington factory had ceased. One of the last valve-equipped sets to carry the Columbus name was the model RG11 radiogram of 1960, but this was made at Akrad’s Waihi factory.

Model 565C 5-valve BC was also sold under the Radiola name 1955
Model 566 5-valve DW also marketed under Radiola name 1956
Model 563A 5-valve BC also marketed under Radiola name 1958
Model 117PZ 1957. One of the few transistorised sets made by Columbus.

Model 501B 5-valve BC 1957
Model 515 5-valve BC 1957
Model 810 6-valve DW 1959

RADIO CORPORATION OF N.Z. LTD—COURTENAY

The brandname Courtenay was originally introduced in 1930 on receivers made by W. Marks, and this name was carried on after the Columbus name was introduced in 1937. Courtenay radios were originally distributed by the Stewart Hardware Co. but in 1935 distribution was taken over by Turnbull & Jones Ltd. In 1956 the Courtenay name was withdrawn from the market when Turnbull & Jones gave up handling radios.

WHAT ARE THEY SINGING?

Would you enjoy listening to their old-fashioned songs? Not always, because you need to know the daily news, the market and weather reports. To have first knowledge of the national events, or the results and conclusion of heroic exploration, the results of weekend sports.

You need radio for both pleasure and profit. The Courtenay Range of Radio All-Electric Sets will always lead with the lowest prices and fool-proof adjustment.

Look at this finely constructed All-electric Local Receiver. Priced at £10/10/- Distril ted through all Radio Dealers in N.Z. by STEWART HARDWARE LTD. COURTENAY PLACE — WELLO NGTON.

The “Courtenay” is a table model receiver which picks up every note from the local broadcast station and sets the loudspeaker alive with crystal-clear tone. One control only to vary the strength of the programme and, each item, be it news, sport results, dinner music or the beautiful Maori songs, is brought to your ear loud or softly as you respond with joy.

The lowest priced of all electric sets. £10/10/- ready to plug in.

Stewart Hardware Limited
Courtenay Place, Wellington,

The first Courtenay in its metal cabinet 1930
H.M.S. "TALISMAN", submarine "Triton" class, mounting one 4-inch gun and ten torpedo tubes, was completed in 1940. Operating from Malta and Gibraltar, she sank several enemy ships before being lost on patrol in the Sicilian Channel in 1942. The first "Talisman", a destroyer, was completed in 1916.

MODEL 5

"TALISMAN"

5 VALVE MANTEL MODEL

A Broadcast superheterodyne receiver with A.C. Switch on volume control. Utilizes latest miniature valves and built-in high gain aerial loop. Can operate without external aerial on local stations and main New Zealand stations at night. Can also be moved from room to room and connected without necessity of providing aerial outlets. Smoothly operating vertical "slide rule" dial . . . 5-inch speaker . . . Cadmium plated chassis. Cabinet of beautifully grained, finely polished Walnut.

THERE'S NO COMPROMISE WITH QUALITY IN A COURTENAY
Model 7BD 7-valve DW battery set 1934
Model 103 5-valve superhet 1933
Model 108 6-valve DW 1934
Model 85 5-valve DW 1938
Model 22 5-valve BC 1940
Model 18 or 21 6-valve DW in "Rhapsody" cabinet 1936
Model 12 5-valve BC 1941
Model 33 8-valve AW 1936
Model 18 6-valve DW in "Prelude" cabinet 1936
Model 69 6-valve semi-bandspread 1941

The Popular
BROWNLOW
Prices from £22/10/-

You will thrill to the beautiful voice of the "COURTE- NAY". It is New Zealand's triumph! Made in New Zealand for our own conditions. More stations, longer distances, greater clarity, richer volume and a sweeter tone. No imported instrument gives you so much for so little!

The Incomparable
Courtenay

COURTENAY RADIO LIMITED,
82 Courtenay Place Wellington.
A Few of the COURTENAY Dealers:
DUNEDIN,
Godds Supplies, Ltd.
National Radio Sales.
INVERCARGILL,
Holloway Bros.
STEWART ISLAND,
T. Bragg.
ALEXANDRA,
Alexandra Motors, Ltd.
BALLCLUTHA,
Grant & Clark.
BALFOUR,
W. Asher.

MADE IN NEW ZEALAND!
Because at one time there were so many different private brandnames appearing on sets made by Radio Corporation they will be given only the briefest mention. Of the names appearing between 1933 and 1937 only two ever became well known—"Pacific" and "Stella". Amongst the lesser known brands were Acme, Audiola and CQ.

Not surprisingly, most of the brandowners wanted their sets to look as different as possible from Courtenay or Columbus and, as can be seen from the accompanying pictures, many of them went to some trouble to accomplish this. Particularly in the case of Pacific was this endeavour noticeable where Art Deco styling was favoured.

On the other hand the cabinets used by Stella were in most cases quite similar to those used by Columbus and Courtenay, particularly in the 1937 models which were the last private brand sets issued.

Pacific Radio gives entertainment to the most exacting taste. At a turn of the dial programme after programme can be brought in, giving unlimited choice. Stations in America, London, Paris, as well as Australian and local, are received with ample volume and faithful tone. Own a Pacific for Real Satisfaction.

Priced from £16/16/-

Agents Everywhere.

PACIFIC RADIO CO., LTD.,
Huddart Parkes Buildings,
Wellington.
British Chambers, High St.,
Auckland.
South Island Distributors—
L. B. SCOTT, LTD.,
101 Manchester St., Christchurch.
PACIFIC RADIO CO. LTD, WELLINGTON

5-valve BC 1933
6-valve BC 1934
7-valve DW 1936
7-valve DW 1934
5-valve BC 1935
5-valve superhet 1934
7-valve DW 1935
Model 33 8-valve AW 1936

RADIO CORPORATION OF N.Z. (MISC.)

Acme 4-valve TRF 1933
Acme 6-valve superhet 1933
Acme 4-valve TRF (r) shown alongside a Courtenay for size comparison

Audiola 6-valve DW model 9 1936
Troubadour 6-valve BC model 6V 1933
Troubadour 5-valve BC model 5H 1934
STELLA

**DESIGNED TO BE LIVED WITH AS WELL AS LISTENED TO!**

**STELLA 'SIRIUS'**
★ The S-1vaNc deal-wave mantel model, compact, and with bell-shaped 6" dynamic speaker. Chassis as specified overall. A beautiful and unusual design with corner baffes and double grille: handsomely finished with contrasting inlays in beautifully figured woods.

**STELLA 'REGULUS'**
★ The Stella 'Regulus' (at right) has exactly similar specifications, but housed in the handsome cabinet shown, with inclined centre panel and drawer-slide for log chart. Of unique design and masterly proportions, in specially selected polished woods.

★ STELLA

"Proudly Made—Proudly Owned"

NEW LARGE SPIRAL DIAL

This revolutionary tuning device is fitted to STELLA Models 3B, 43 and 77B. Full 6 inches diameter. Tuning scales etched on glass and brilliantly coloured. Edge-lighting by means of two motor-car tail lamps, giving long reliable service and illumination. No pointer, but coloured spots follow ingenious spiral tuning scale 24 inches long on each band. instantaneous and direct indication of tuning band by movement of wave-change switch. Each band separately coloured. Visual indication of tone and volume by ingenious mechanical eyes. Large moulded bakelite escutcheon incorporating master eye tuning indicator as well as tone and volume indicators. Two-speed tuning with double knob mechanism extremely positive and smooth in operation.

NEW ZEALAND DISTRIBUTORS:
CORY - WRIGHT & SALMON LIMITED,
P.O. Box 1558, Wellington, P.O. Box 1000, Auckland.
Ashby Bergh and Co., Ltd., Christchurch and Dunedin.

Dealers throughout New Zealand are ready to demonstrate STELLA to you.
RADIO LTD—RADIO 1936 LTD—ULTIMATE EKCO LTD

The first mains-operated Ultimate radio, produced in 1929, was an electrified version of the earlier battery-operated Screen Grid Four. It used exactly the same sized metal cabinet and the same circuitry. The main difference was the use of 5-pin sockets for the first three valves, which were not indirectly heated AC types. A separate power pack was used.

It is interesting to note that, following the tradition established in 1927 when the all-wave
Courier 5-valve model 205 1933

Courier 6-valve BC model 216 1933

Courier 5-valve BC chassis 5TC 1933

Courier 6-valve DW 1935. Note lift-up flap over controls.

Courier 5-valve BC model 165 1933

Courier 5-valve BC chassis VC 1934

Courier AHC 5-valve BC 1935

Courier 6-valve BC model 236 1933

Courier 5-valve BC chassis VC 1934

Courier 6-valve DW chassis CO 1935

Courier 5-valve BC chassis VC 1934

Courier 6-valve DW chassis CO 1935

Courier 6-valve BC 1934. Note drum dial.
battery sets were launched, for the first three years AC receivers were made only in all-wave form. At this early date shortwave reception was still very much of a novelty and very few manufacturers in any countries had produced all-wave receivers for general use before 1933. Even though these Ultimate sets could boast single-dial tuning they were still regenerative TRFs using plug-in coils, which meant that they were sets for the enthusiast rather than the ordinary listener.

However, by 1932 production of all-wave receivers had been almost completely overshadowed by the arrival of superheterodynes having BC band coverage only. This state of affairs continued for the next few years even though Radio Ltd carried on their pioneering role by becoming the first N.Z. manufacturer to make all-wave superhets. By this time public interest in shortwave reception had waned and not until several years had elapsed did multi-wave receivers become popular. For the record, it should be mentioned that in 1932 Radio Ltd produced a self-powered shortwave converter suitable for use on any make or model of broadcast receiver.

A form of model identification for sales purposes was introduced in 1931, using a three-letter code which indicated the number of valves and the price of each model, thus: 856 indicated 8 valves £56, 527 indicated 5 valves £27, and so on. This system was carried on through 1933 and was also used with the Courier brandline marketed during this period. In the case of Courier the same actual numerals were used but their relative positions were interchanged, thus 514 Ultimate became 145 Courier, and so on.

Chassis identification was by means of an alphanumeric code die-stamped into the rear chassis apron or flange, the figures preceding the serial number.

During 1934 cabinet styles became identified by model names and the former three-digit system was discontinued. Chassis models were henceforth identified by figures die-stamped on a small metal nameplate fastened to the rear chassis apron. Examples of the new coding are 4K, 5N, NS, but there was no complete uniformity. During 1935 the letters, C, D, E, F, L or X were used singly or in combinations such as CAU, CES, LR, XC and so on.

Not until 1936 was a standardised system adopted wherein the first numeral indicated the year of issue, thus A = 1936, B = 1937, C = 1937-38, C and D = 1939, E = 1940, F = 1941. The fact that “C” had also been used in 1935 seems to have been an unfortunate oversight.

So far, so good, but for some unfathomable reason Radio 1936 Ltd did not often make use of this coding when preparing circuit diagrams, here it was (and is!) most frustrating to find descriptions only being used, thus “6-valve broadcast 1938 model” or “5-valve dual wave 1937 model”.

By 1939, however, a gradual change was taking place whereby the actual chassis models came to be included on the circuit diagrams. But even as late as 1940 some circuit diagrams were still being printed without accompanying model numbers.
The very latest in Battery Receivers
British Construction throughout

A Wonderful Receiver
Ideal for use where electric current is not available

COURIER All-Wave

Latest Model
Screen Grid

BEAUTIFUL WALNUT CABINET

Note sturdy construction, simple layout and accessibility of all parts. Only World's Best Components used in Construction.

Receives all usual Overseas Broadcast Stations, also the usual World's Shortwave Stations

Price only £27/10/-
Complete with Valves, Batteries and Speaker
Short-wave Coils extra 10/- per pair
3 pairs cover whole band.

ULTIMATE

The World's FINEST RADIO
for 1939

ULTIMATE 1939 RADIO
embodies the latest in Radio Research.
In tone, quality, and performance it is a revelation, and being made in New Zealand specially for New Zealand conditions, the ULTIMATE will give you many years' trouble-free service.

Priced from £11/10/- to £147/10/-

798 VERIFIED STATIONS ON AN ULTIMATE RADIO

In the recent CHAMPION OF CHAMPIONS D.X. Challenge Cup Competition
ULTIMATE RADIO scored an outright win with the amazing total of 798 verified stations!
A similar outstanding performance can be expected from any ULTIMATE RADIO.

DEMONSTRATIONS ARRANGED.
Ultimate Screen Grid All-Electric
All-Wave 1930

Ultimate 5-valve superhet model
523 1932 (model 728, chassis 7LAW uses the same cabinet.)

Model 433 4-valve S.G. battery set 1932

Chassis "L" 6-valve BC 1932

Chassis 7L 7-valve BC 1932

Ultimate 7-valve AW 1930.
Note storage rack for coils.

Model 312 4-valve SW converter 1932

ULTIMATE 2-valve plus crystal detector, reflected c.1923

5-valve AW 1930 radiogram

5-valve SG 1931

5-valve AW 1930

Ultimate 5-valve superhet model
523 1932 (model 728, chassis 7LAW uses the same cabinet.)
Chassis "V" as used in models 629 and 631 6-valve 1932

Ultimate 7-valve BC model 1933 (model 936, chassis 9LAW uses the same cabinet).

Model 526 chassis "C" 5-valve superhet 1933

Model 514 5-valve chassis JCL 1933

Model 417 4-valve screen grid 1932

Model 518 5-valve 1933

Model 621 6-valve 1933

Model 516 5-valve 1933

Model 9LAW 1934 "Empire" cabinet

Model 9LAW 1934 "Valour" cabinet

Model 623 6-valve 1933

Model 629 8-valve superhet 1933

Model 518 5-valve 1933

Ultimate 5-valve BC superhet 1933

6-valve BC 1934

Model 9LAW 1934 "Tivoli" cabinet

6-valve 1934

Chassis 7LAW 7-valve AW 1934

Model 9LAW 1934 "Ritz" cabinet
A rare and unusual transportable 230-volt model, available in either 7 or 8-valve form. It was intended for export to Australia and the Pacific (1939).

Upon recommencement of production after the war, a new system of chassis coding came into use. All radios were allocated model identification commencing with the letter “R” (for radio), while all electrical appliances used “E” (for electrical). Initially just two letters sufficed but after about three years it became necessary to use three letters. To summarise: RA to RY from 1946 to 1948, RAA to RAZ from 1948 to 1951, RBA to RBZ from 1951 to 1953, RCA to RCX from 1953 to 1959, RDA to RDZ from 1956 to 1959, REC to REU from 1959 to 1964. Note: there is some overlap in the later periods.

Manufacture of transistorised radios commenced in 1957 and these used the same coding system. After the closure of the Quay Street factory in 1967 any radios bearing the Ultimate name were made by Akrad and used a different system.

RADIO LTD (MISC.)

Ekco 5-valve BC chassis REF “Canewdon” 1960
Golden Knight 5-valve BC chassis CTR 1939
Golden Knight 6-valve DW chassis RW 1949
Lewis Eady 6-valve DW 1947
WESTONHOUSE RADIO LTD—WESTCO PRODUCTS LTD

The clumsy and peculiar name originally used by this firm was dreamt up by its founder, a man by the name of Chadwick. It appears that for some reason Mr Chadwick was greatly impressed by the name Westinghouse and would dearly have liked to use it, but of course he could not. Instead he settled for a similar sounding word which he made up himself—"Westonhouse". The "Air Gas" part of the name referred to a line of pressure-type kerosene operated appliances he was selling at the time. Together these words made up the company name—Westonhouse Air Gas Co. This name remained in use until 1947, long after the firm had ceased dealing in kerosene appliances. In 1947 the name was changed to Westonhouse Radio Ltd, and in 1955 it became Westco Products Ltd. The company went out of business in 1957.

Throughout most of its history the firm specialised in the production of private-brand radios; at least twenty different names are known to have been used over the years.

Carlton
Pathfinder
Courtella
Prior
Denco
Robertson
Elgar
Saxon
Empire
S O S

Essex
Southern Cross
Forest Junior
Tasman
K
Tudor
Lincoln-Fletcher
Yale
Magness
Murphy (to 1956 only)

Nymph 5-valve BC 1937
"Majestic" a bitzer rehashed by Westco using a U.S. Majestic chassis c.1940
"Majestic" a bitzer rehashed by Westco using a U.S. Majestic chassis c.1940
National 7-valve BS model 116 1947
Golden Knight 5-valve BC model 59 1949
Yale 5-valve BC model 16 1947
Yale 5-valve BC model 200 1947
Westco 5-valve BC model 211 1947
Westco 5-valve BC model 227 1949
Westco 5-valve DW model 206 1952
In 1961 the Auckland firm of Frank Wiseman & Sons Ltd celebrated 100 years of business in New Zealand, tracing its origins back to 1862 when James Wiseman arrived from Tasmania and established a saddlery factory known as J. Wiseman & Sons. James Wiseman had four sons, the youngest of whom, Frank, opened a retail shop in 1924. Two other sons, James W. and Murray, carried on the family saddlery business after the death of their father in 1898.

It was while still located at their Albert Street premises that, in 1927, the firm took the surprising step of embarking on the manufacture of radio receivers; surprising because in those days there were only two or three actual radio manufacturers in the whole of the country, and they were specialists. Just what caused a saddlery factory to take up radio manufacturing in addition to its normal business is now a matter of speculation, but the fact remains that they did.

The first productions were 2-valve and 3-valve sets, both of which were advertised in October 1927 under the name "Courier" together with a slogan "Brings Tidings from Afar". By 1928 there were 1, 3 and 4-valve sets in production, the latter being a dual-wave model in which the change-over to short wave was accomplished not by the use of plug-in coils but by means of a switch mounted on the back of the cabinet. This was a surprising innovation indeed in 1928, which was actually patented by the firm (N.Z. Patent No.50508).

Further progress was evident in 1929 when the first single-dial control set, model QR3 was released. The letters "QR" stood for "Quenched Radiation", another patented feature (N.Z. Patent No. 50577). This same year also saw the release of the first AC set, model "ES", which featured such up-to-date advances as screen-grid and pentode valves.

Two new AC models were released in 1930, a 3-valve BC model AC3 and a 4-valve dual-wave model AC4. But then something went wrong. Radio production suddenly ceased, for whatever reason we can now only speculate, and was never again resumed, though the firm itself remains in business to this very day.

---

**Courier** Radio Sets

"Brings Tidings from Afar".

Wholesale Only, from Manufacturers—
J. WISEMAN & SONS, LTD., Albert St., AUCKLAND

Read what Mr. Harrison achieved on his "Courier" Three

"Auckland, Wellington, and Christchurch are heard every night on the loudspeaker. Chrishurch and Wellington during the day: 2BL on phones every night from 7.30 N.Z. time later on speaker. Short waves: 3LO (Monday mornings), 2ME during the Eucharistic Congress was excellent on the speaker—both for volume and clearness during the day and evening, there was very little fading on any occasion. My Courier Three is indeed a wonderful set. It is in first-class order."—A. HARRISON, Lower Hutt.

Wholesale:
J. WISEMAN & SONS LTD.
Albert Street, Auckland.

ALL GOOD DEALERS

Sept. 1928
The New "COURIER" THREE

Model QR3 3-valve dual-wave featuring "Quenched Radiation" 1929

THE COURIER
A New Zealand Production
Advance Particulars of 1930 MODELS

COURIER A.C. 4
High and Low Wave Screened Grid
In two models, Table and Console.

TABLE MODEL
In fine bronze finished metal cabinet of chace design, as illustrated
Price with Valves, £32

CONSOLE MODEL
The "COURIER" Console is something entirely new. Write and ask for illustrated leaflet. The cabinet is in oak, with a fine finish, and stands only two feet high. The sloping panel gives clear visibility and comfortable control while operator reclines in an armchair.
Price with Valves and concealed moving coil speaker, £45

The "STENTOR" "COURIER" A.C. 3
A powerful 3-valve all-electric wondefully selective, plug-in gramophone amplifier. In leathereke cabinet as illustrated, £19/19/-.

Price Complete
The "COURIER" Model A.C. with values £11
With valves and "COURIER" Speaker £13

J. WISEMAN & SONS LTD.
ALBERT ST., AUCKLAND

The "Courier"
Sets the Standard in Radio Sets

Employs No Troublesome Plug-in Coils
High or Low by the Flick of a Switch

Yes—the "Courier Four" sets a high standard indeed. Employs no plug-in coils—it can be changed over from broadcast wave-length reception to low wave reception by the mere pressing of a switch and it is the simplest of sets to manipulate.

The "Courier"
FOUR £27/10/-

The "Courier" Radio Set is made in New Zealand for New Zealand conditions and is fully guaranteed.

"No better set offer on the market to-day."

See the marvellous 4-valve "Courier"—you'll then be convinced that the above statement is absolutely true.

 Wholesale Only:
J. WISEMAN & SONS LTD.
Albert Street, Auckland

1929
MISCELLANEOUS—NEW ZEALAND

Ariel Radio “THE SPIRIT OF THE AIR”

Product of WARWICK SMEETON LTD.,
9-11 Wellesley St. East, AUCKLAND

Ariel 5-valve DW model 1194 1937

Ariel 6-valve DW 1936

Ariel “Sprite” 5-valve 1937

Ariel 5-valve BC mfd by Webb’s Radios 1950-51

Ariel 6-valve AW model 3176 1938

Ariel 7-valve BC 1934

Briton 8-valve AW 1935

Briton 6-valve AW 1935

“sealed for your protection like a Rolls Royce car”.

Ambassador 6-valve BC 1934

Ariel 5-valve DW 1937

Ariel “Sprite” 5-valve 1937

Ariel 5-valve AW mfd by Briton 6-valve DW 1937

Ariel 6-valve AW 1937

Autocrat model PCR54 for mains operation or car radio use 1955

Atomic 5-valve BC model B44 1945

Austin 6-valve DW 1937

Briton 6-valve AW 1935

Briton 8-valve AW 1935

"sealed for your protection like a Rolls Royce car".
In 1955 Autocrat car radios dominated the market-place. They were also sold under the names Ford and National.
Everest 5IB 4-valve all dry battery set 1940-41

E.I.L. 5-valve DW model
94 1949

La Wood uses 5 transistors plus one IC (first IC used in a N.Z. broadcast set) 1974

E.I.L. 5-valve BC model
92 1947

Lytic 5-valve BC 1934

Unbranded 5-valve BC mfd by Larsen Radio c.1935

Auckland 1928

Golden Bell 6-valve mfd by Sheffield 1936

Fisher 6-valve BC 1933

Genrad 6-valve 1933

Genrad 7-valve model 733 1933

Genrad 5-valve AC/DC model 345 1934

Hagra 4-valve SG battery set mfd by Hartle & Gray, Auckland 1928

ECC 5-valve mfd by General Radio Ltd 1933

Globe 5-valve BC 1937

Lyric 5-valve BC 1934

Grove 5-valve BC 1947

Hag” 4-valve BC 1947

Unbranded 5-valve BC mfd by Cash Radio Co. Chch 1935

Globe 5-valve BC 1937

Haywin “Atom” 4-valve 1949

Unbranded 5-valve BC mfd by Cash Radio Co. Chch 1935

Lyric 5-valve BC 1934

Unbranded 5-valve BC mfd by Cash Radio Co. Chch 1935

“Lyra-Tone” 6-valve DW mfd by Cash Radio Co. Chch 1935
The Great Little
SELECTRA
All-electric "4"

THE SELECTRA ALL-ELECTRIC "5"
Price complete £49/10/-

Illustrated Lists, Prices and Particulars from any Authorised Selectra Agent—or write direct to—
SELECTRA RADIO LIMITED
1st FLOOR, MERCANTILE CHAMBERS, CORNER FORT AND CUSTOMS STREETS, AUCKLAND
"Phone 40-398.
SILVERTONE RADIOS
AGENTS WANTED
Silvertone is an established make which has been successfully sold in Auckland for many years by S. E. Moe Co., Ltd.

RADIO SPECIALTIES LTD,
(Successors to S. E. Moe Co., Ltd.) are extending the distribution of the now famous Silvertone, and invite inquiries from reputable firms with progressive sales policies. A full range of models is available. Further information will be sent on request. Apply to

RADIO SPECIALTIES LTD,
319 QUEEN STREET, AUCKLAND
A Thing of Beauty
THE MODERN NOTE IN A SUPERB NEW SUPERHET...

TEMPLE RECEIVERS

Temple 6-valve AW 1935
Temple 5-valve AW 1935
Temple 6-valve AW 1935
Temple 5-valve AW 1935

Temple 6-valve AW 1935
Temple 5-valve AW 1935
Temple 6-valve DW 1935

Telerad 7-valve DW “All World” 1937
Telerad 5-valve BC 1938
Telerad model 73 7-valve 3 bands 1948

Universal 5-valve BC 1948
Telerad 6-valve BC 1955
World 5-valve BC. Cabinet is finished in heat formed celluloid. 1936
World 7-valve BC 1938

Universal 6-valve DW 1936
Windsor 7-valve DW mfd by Sexton Radio Co. 1934
World 5-valve BC 1955
World 7-valve BS 1951

Windsor 7-valve DW mfd by Sexton Radio Co. 1934

Viking 5-valve 1933

Universal 5-valve BC 1948
<table>
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<th>Manufacturer</th>
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<td>Sexton Radio Co.</td>
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<tr>
<td>Silvertone (c.1947)</td>
<td></td>
<td>Sheffield Radio Ltd</td>
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<tr>
<td>Skyscraper</td>
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<td>various</td>
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<tr>
<td>Skymaster</td>
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<td>Bell Radio-TV Corp. Ltd</td>
</tr>
<tr>
<td>Sonomatic</td>
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<td>Radio (1936) Ltd</td>
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<td>SOS</td>
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<td>Westonhouse Radio Co.</td>
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<tr>
<td>Southern Cross</td>
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<td>Westonhouse Radio Co.</td>
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<tr>
<td>Sovereign (c.1934)</td>
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<td>Collier &amp; Beale Ltd</td>
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<td>Stella (early)</td>
<td>Cory, Wright &amp; Salmon Ltd</td>
<td>Collier &amp; Beal/Radio Corp.</td>
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<tr>
<td>Stella (c.1959)</td>
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<td>Stella Industries Ltd</td>
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<td>Sterling</td>
<td>Sterling Stores Ltd</td>
<td>Collier &amp; Beale Ltd</td>
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<td>Strola</td>
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<td>Radio Products Ltd</td>
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<td>Strolette</td>
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<td>Radio Products Ltd</td>
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<tr>
<td>Superdyne</td>
<td>Frank Wiseman Ltd</td>
<td>World Radio Industries Ltd</td>
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<tr>
<td>Supola</td>
<td>L. D. Nathan Ltd</td>
<td>Universal Radio Co.</td>
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<td>Tasman Traders Ltd</td>
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<td>Swan</td>
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<td>Swan Electric Co. Ltd</td>
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<td>Sylvia</td>
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<td>Tasman</td>
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<td>Westonhouse Radio Co.</td>
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<tr>
<td>Telerad</td>
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<tr>
<td>Temple (c.1932)</td>
<td>Ellis &amp; Co. Ltd</td>
<td>General Radio Ltd</td>
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<tr>
<td>Temple (later)</td>
<td>Ripley’s Radios</td>
<td>World Radio Industries Ltd</td>
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<td>Thorn</td>
<td></td>
<td>Thorn Radio Industries Ltd</td>
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<td>Trav-Ler</td>
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<td>Collier &amp; Beale Ltd</td>
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<td>Trojan</td>
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<td>Ambassador Radio Co.</td>
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<td>Tudor</td>
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<td>Westonhouse Radio Co.</td>
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<td>Troubadour</td>
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<td>Turnbull &amp; Jones Ltd</td>
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<td>Ultimate</td>
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<td>N.Z. Radio Mfg Co. Ltd</td>
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<td>Sexton Radio Co.</td>
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<td>Vocalion</td>
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<td>Wavemaster</td>
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<td>Keith’s Radio Service</td>
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<td>Wayfarer</td>
<td>Waldo Hunter Ltd</td>
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<tr>
<td>Windsor</td>
<td>Frank Wiseman Ltd</td>
<td>Bell Radio-TV Corp. Ltd</td>
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<tr>
<td>Wiseman’s Winner</td>
<td>Johns Ltd</td>
<td>World Radio Industries Ltd</td>
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<td>World</td>
<td></td>
<td>Wellmade Ltd</td>
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<td>Well Mayde</td>
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<td>Westonhouse Radio Co.</td>
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<tr>
<td>Yale</td>
<td></td>
<td>T. Megann Ltd</td>
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<tr>
<td>Zenith</td>
<td>(piracy of U.S. name)</td>
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NEW ZEALAND NAMES USED ON OVERSEAS RADIOS

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<tr>
<th>Brand</th>
<th>Distributor</th>
<th>Manufacturer</th>
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<td>Aeolian</td>
<td>Briton Trading Co.</td>
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<td>Explorer</td>
<td>Crawford &amp; Finlayson</td>
<td>Patterson Radio Co. U.S.A.</td>
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<td>Liberty Five</td>
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<td>Gilfillan Bros U.S.A.</td>
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<td>Lyratone</td>
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<td>Gilfillan Bros U.S.A.</td>
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<td>Farmers Trading Co. Ltd</td>
<td>Radio Products Corp. U.S.A.</td>
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<td>Stannage Radio Co.</td>
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<td>N.Z. Express Co. Ltd</td>
<td>Thom &amp; Smith Ltd, Australia</td>
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<tr>
<td>Viking</td>
<td></td>
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SECTION THREE

United States

INTRODUCTION TO THE AMERICAN SECTION

In preparing this section one consideration has been to avoid, as far as possible, duplicating existing published material which has appeared in either this writer's previous book* or in overseas publications. Where familiar brandnames appear in these pages it will be found that the accompanying illustrations are generally of models not previously covered elsewhere. While some use has been made of contemporary advertisements appearing in both New Zealand and the United States, most of the pictures are recent photographs taken in this country. Although most of the makes and models illustrated are ones which were sold in New Zealand, a few others have also been included as being likely to interest readers in both Australia and New Zealand.

As regards the method of dating, the dates appearing in the captions are usually the so-called “model year”. To explain: for many years it was the practice of some American manufacturers to advertise “next year's models” well in advance of the nominal release date, the idea being to persuade potential buyers that they need not wait until “next year” to get next year's models. Most manufacturers concentrated on releasing their annual crop of new models well before the end of the year, in plenty of time for the Christmas trade. But as time went by, some first began to advertise next year's models earlier and earlier, resulting in, say, a 1937 model being advertised in September or even earlier. Getting in ahead of the competition it was called.

The matter of receiver model numbering can also conveniently be mentioned here. Many American manufacturers used one number for the chassis and another for the complete radio; sometimes the cabinet or the complete set were given model names as well. This practice arose as the result of some manufacturers using the one basic chassis in a variety of different style cabinets; alternatively, more than one model of chassis could be used in the same cabinet. Either way there could be, and still are, difficulties in subsequently identifying a particular model. As far as this book is concerned, the policy has been to use the model number for the complete radio, if it is known or if there is one, otherwise the chassis model is given.

* The Golden Age of Radio in the Home, 1986

SOME EARLY AMERICAN BATTERY SETS

Right: De Forest type OT3
“Midget radiophone”
15-watt transmitter 1921

Bremer Tully 6-valve
“Counterphase 6” 1927

Erla 5-valve model C12 1927

Broadcasting as it was done in 1923.
A carbon microphone picks up the sound directly from the horn of an Edison Phonograph.
Sirius "Wavemaster" 5-valve TRF 1925

Norden Hauck 10-valve TRF 1926

Norden-Hauck "Plio-Six" 6-valve battery set 1925

"Page 6" 6-valve 1925

Radiola III 2-valve regenerative 1924

Supertone 8-valve superhet 1926

Radiola 20 4-valve TRF 1925

Sonora with enclosed-horn speaker 1926

Model D6S 6-valve DW 1937

Model 12E6 6-valve AW 1938

Model 2B6 6-valve AW 1936

Model 610 6-valve DW 1936

Model 2E8 8-valve AW 1939

Model 4D5 5-valve BC chassis D5E 1937

Page 6
AMERICAN-BOSCH
Round-the-World RADIO

Model 430T 5 tube, AW 1936

Model 509 6 tube, 2 band 1936

Model 618 5 tube, 2 band 1936

Model 747 7 tube, 3 band 1936

Model 672C 9 tube, 4 band 1937

Model 672C 9 tube, 4 band 1937

Model 672C 9 tube, 4 band 1937

MODEL 402—3 tube, 8-tube performance. AC-DC. Range 540 to 1750 Kilocycles. Generous volume

MODEL 420—5 tube, 8-tube performance. Dual Wave Portable radio for AC operation. Range 140 to 3600 Kilocycles with special focus on police calls...

MODEL 460A—7 tube, 9-tube performance. All wave superheterodyne console radio. 540 to 21,000 Kilocycles...

MODEL 440T—6 tube, 9-tube performance console radio. 540 to 1600 Kilo, and short wave from 5600 to 15,500 Kilo...

MODEL 460B—7 tube, 9-tube performance. All wave superheterodyne console radio. 540 to 21,000 Kilocycles...

MODEL 480C—10 tube, 12-tube performance. All wave superheterodyne de luxe radio. 540 to 22,500 Kilocycles...

MODEL 460R—7 tube, 9-tube performance. All wave superheterodyne console radio. 540 to 21,000 Kilocycles...

MODEL 440C—6 tube, 9-tube performance. 540 to 1600 Kilocycles and short wave from 5600 to 15,500 Kilocycles...

$39.95

$69.50

$149.50

$94.50

$69.50

$54.50

$67.50
**Model 35 Receiver**
Part No. 8294 - A One Dial Six Tube Receiver with complete Instruction Book, Detector Cap and Log Card, but without Tubes

Model B Speaker
Everything Complete, 1 Speaker, $99 00

**Model 80 Receiver**
Part No. 8501 - A One Dial Six Tube Receiver with complete Instruction Book, Detector Cap and Log Card, but without Tubes

Model E Speaker
Everything Complete, 1 Speaker, $99 00

**Model 33 Receiver**
Part No. 8611 - A One Dial Six Tube Receiver with antenna adjustment; complete Instruction Book, Detector Cap and Log Card, but without Tubes

Model E Speaker
Everything Complete, 1 Speaker, $99 00

**Model 32 Receiver**
Part No. 8291 - A One Dial Six Tube Receiver with complete Instruction Book, Detector Cap and Log Card, but without Tubes

Model B Speaker
Everything Complete, 1 Speaker, $99 00

**Model 50 Receiver**
Part No. 8821 - A One Dial Seven Tube Receiver with complete Instruction Book, Detector Cap and Log Card, but without Tubes

Model E Speaker
Everything Complete, 1 Speaker, $99 00

**Model 246 6-valve BC 1933**
Atwater Kent Radio

First

PERFECTED USE of the

PENTODE TUBE

SUPER-HETERODYNE

The NEW Golden Voiced COMPACT

Once more the pioneer blazes a new trail—foot with the Pentode tube! It's the five-element tube, which scientists have been talking about for two years.

Now it's here—in this new Atwater Kent Compact. Another first for Atwater Kent! It takes Atwater Kent engineers to find the way to use the Pentode—and actually to put it in a super-heterodyne!

Six times as much amplification as ordinary tubes. Twice as much untintorted output. That's the Pentode! It does the work of three old-style tubes.

Now you get big performance in a small radio at an unbelievably low price. Think of it! An Atwater Kent—the greatest name in radio—complete with tubes—and only $69.50!

Try it yourself today. Listen to that tone! How rich, clear, true to life! See how super-heterodyne selectivity cuts out interfering stations as if they didn't exist. And volume! And distance! Everything you want. Only Atwater Kent experience and skill could give you such a Compact.

It's a quality radio. Materials and workmanship as fine as in our larger Golden Voiced models.

In any room in any home this beautiful, friendly, powerful little radio will fit in as if built there. At this low price, have more than one radio in your house!

The first radios sold under the name Clarion were made by the Transformer Corporation of America (TCA). As the name suggests, this firm was originally engaged in the manufacture of transformers but in 1930 started to make complete receivers. At this time TCA specialised in supplying chassis to private brandowners, one model in particular, the AC40, being sold under no less than four different names—Brunswick, Bulova, Columbia and Temple in addition to Clarion.

The Transformer Corp. continued making radios in Chicago until 1933 when the plant was closed and a move made to New York where two new companies, each operating under the old name but from different addresses, were established. At one address only amplifiers were made and sold, while from the other address radios made by various suppliers were marketed.

Although no firm was operating under the name Transformer Corp. of America after 1939, Clarion brand radios were still being marketed until at least 1947, one of the main suppliers being the Warwick Mfg Co. of Chicago.

Clarion radios were sold in New Zealand right from the inception of their manufacture in 1930, two of the earliest being the 6-valve model AC40 “Clarion Jr” and the AC51, an 8-valve console. Because of the short length of time the company was in business, coupled with the comparatively small quantity of sets made, there are few remaining Clarions to be found in this country today.
If a person is swayed by one particular selling point, it may be long distance reception, or it may be a striking cabinet.

But, when YOU buy your Radio, you will surely not let your judgment of value be warped by just ONE feature.

You will see and recognize the remarkable investment COLONIAL offers; for COLONIAL RADIO gives you EVERY feature—Simple Control; Wide Range; Pure Tone; Power; Long Distance Reception; Hairline Selectivity; and extraordinarily fine and handsome appearance.

Grace your home with a beautiful Colonial Radio. Its golden voice is absolutely perfect. Write for full particulars and literature too.

New Zealand factory Representatives:

N. R. CUNNINGHAM LTD.,
Colonial House - Queen Street
P.O. BOX 142R, MASTERTON


"RADIO'S CLEAREST VOICE"

CROSLEY

Introduced late in 1930, the 1931 line of Crosley receivers featured a new method of cabinet construction using a moulded material known as "Repwood". As its name suggests, Repwood was intended to be a substitute for wood which would enable cabinets to be produced in one operation with a consequent reduction in manufacturing costs. It was a dense, hard substance which lent itself well to being formed into intricate shapes such as imitation carvings. Crosley made full use of Repwood in a few models.

(Left) The AMRAD RON-DEAL Model. A magnificent cabinet enlivened with exquisite carved decorations. The set is the latest AMRAD eight tube Screen Grid, Neutrodyn chassis. The new AMRAD Type 249 Dynamic-power speaker is incorporated. Automatic volume control maintains a practically uniform volume. Priced at $150.00, less tubes.

(Right) The AMRAD SON-DO Model. A new electric phonograph and radio combination incorporating the latest eight tube AMRAD Screen Grid, Neutrodyn chassis and the new AMRAD Type 249 Dynamic-power speaker. The cabinet is the final word in radio cabinet beauty. It contains two wells for records. Priced at $200.00, less tubes.

COLONIAL Radio

has EVERY Feature!

MANY people in buying a Radio are swayed by one particular selling point. It may be long distance reception, or it may be a striking cabinet.

But, when YOU buy your Radio, you will surely not let your judgment of value be warped by just ONE feature.

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AMRAD DIVISION of
THE CROSLEY RADIO CORPORATION
Povel Crosley, Jr., Pnes. Home of the Nation's Station—W.L.W.
CINCINNATI
CROSLEY RADIO CORP.
Trade Name: CROSLEY

Designation of complete set
Speaker
327-4
326-4
325-4
324-4
323-4
322-4
321-5,
320-4,
319-3
318-3
317-3
301
298
291
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36
34
32
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28
26
24
22
20
18
16
14
12
10
8
6
4
2
0

Index of 1931 model names and numbers

You’re there with a CROSLEY

Model 42S 8-valve SG 1930
Super Buddy Boy model 122 7-valve 1931
Pal 5-valve SG model 53F 1931
Buddy Boy 5-valve SG model 58 1931
Sonateer 5-valve SG model 59 1931
Model 150 6-valve BC 1932
Bonniboy 4-valve super model 131 1932
Tenstrike 10-valve BC model 127 1932

Crosley Radio Corp.
large range of models including some small consoles, the smallest of which—the "Pal"—measured only 25 inches high. Larger consoles, such as the model 57 "Mate" and 77B "Arbiter", were of composite construction using a Repwood front panel on a wooden frame.

Although the total number of different Repwood cabinet styles is unknown (it could have been as high as 30), at least 12 models are known to have been imported into New Zealand. Of these not every cabinet style had a different chassis model, one chassis being used in up to four different cabinets.

In view of Crosley's connection with Amrad (Crosley had taken over the old American Radio & Research Corp. in 1925) it is apposite to mention that towards the end of 1930 the Amrad Division of the Crosley Radio Corp. marketed several Repwood models, such as the "Sondo" and "Rondeau", under the Amrad name. They were the last of the Amrads.

By 1932, however, the Repwood era was over and Crosley changed to the use of conventional wood cabinets. Included amongst the 1932-33 range were some unusual giant "cathedral" models, the largest of which had a cabinet standing 18 inches high, only seven inches less than the "Pal" console!

In spite of the fact that Crosley became one of the largest American radio manufacturers, rising to third place in the industry in 1930, Crosley receivers did not become as well known in New Zealand as other brands, probably due to lack of effective representation and promotion. Be that as it may, the fact remains that surviving examples are certainly thin on the ground. Judging from what is to be found in the hands of present-day collectors, it is the metal-box models which are the survivors.

EDISON'S RADIOS

"Radio is a commercial failure and its popularity with the public is waning. Radio is impractical commercially and aesthetically distorted, and it is rapidly losing its grip in the market and in the home."

Thus spake Thomas Alva Edison in 1926, yet within three years the first Edison radio was on the market. How did this come about? Read on.

By 1929 the phonograph and record market had almost collapsed consequent upon the meteoric rise of radio broadcasting as America's new medium of in-home entertainment. For the phonograph industry, the writing was on the wall. In November 1929 Edison himself gave orders for the production
The greatest name in science guarantees your radio investment.

Thomas A. Edison's signature is not appended to halfway achievements. Not until a perfected radio had been developed in the Edison Laboratories could there be an Edison Radio. Now the Edison Light-O-Matic Radio is here and confidence in radio-buying has come. Choose the Edison for its faithful delivery of the artist's true performance. Choose it as an investment in better living. Choose it because of the pleasure it will give you through the years to come. Above all, choose it for that pride of possession assured by the name on the panel—

The model illustrated is the C-4 — the Edison Radio-Phonograph Combination. It is all-electric... plays all makes of needle records with the same superb radio-realism that so distinguishes the Edison Radio. Its massive studio cabinet is superbly executed. Finish of blended walnut with sliding door of matched butt walnut and front relieved with butt walnut panels. $323, less tubes. Other models from $173 upwards, less tubes. (Prices slightly higher in the far west.)

Write for "Edison's Past in Radio" — a fascinating booklet. Thomas A. Edison, Inc., Orange, N. J.
of phonographs and records to cease, thus ending an era that had spanned half a century.

Although Mr Edison was personally opposed to his company entering the radio manufacturing field, others in the company, including his son Charles, must have realised that it was a case of “If you can’t lick ’em then join ’em”, because in 1928 Thomas A. Edison Inc. purchased the Splitdorf Radio Co., a company which had been making radios since 1924. This move provided the Edison company with both a manufacturing licence and an operating radio factory. It was in the Splitdorf factory that the first receivers to bear the Edison name were produced.

But, as things turned out, 1929 could not have been a worse year in which to launch a new business, and although the manufacture of Edison radios continued into 1930, the deepening economic depression put an end to production later in the same year. So ended the short history of Edison radio. The N.Z. agents were the A. R. Harris Co. of Christchurch.

The first Edison radios, produced in 1928, were seven and nine-tube TRF models notable for the use of regenerative grid-leak detection. Regeneration was a feature normally never found in multi-tube AC sets, yet there it was. In “combination” (radiogram) form the 9-tube version was priced at $1,100-0-0. In the following year, 1929, came an 8-tube model with a neutralised RF section but still using out-moded grid-leak detection. By the end of the year a 9-tube screen-grid model intended for the 1930 season was ready. In comparison with the earlier models, this set was of a most progressive design in that it featured diode detection combined with automatic volume control (AVC) even though variable-mu tubes had not then been invented. By comparison, other manufacturers, with the exception of Philco, did not have similar models on the market until a year or two later.

EMERSON

The Emerson Phonograph Company, as its name suggests, was originally a manufacturer of acoustic phonographs and records. But like others in the same field, was forced to espouse the cause of radio in order to survive.

Initially the firm sold receivers made by other
Listen to Europe
and the Rest of the World
on the Sensational New
Emerson All-Wave

SHORT AND LONG WAVE RADIO
with modern Superheterodyne Circuit

The Best REGULAR Reception
The Same SHORT-WAVE Reception

Broadcast Range 15 to 600 Meters
Merely throw a simple switch to change from long to short-wave reception—NO COILS TO CHANGE.

The Emerson All-Wave fulfills every demand of the most ardent radio fan—good, clear European reception—stations throughout the Americas—amateur broadcasts—police signals—ships at sea—planes in flight, etc.

An efficient 8-tube chassis using 2 No. 235, 3 No. 224, one No. 227, one No. 247, one No. 280. Automatic volume control—tone control—two illuminated full-vision tuning dials—full size dynamic speaker. Pentode and Vari-Mu Tubes.

The Emerson is housed in an exquisite walnut finished cabinet of distinctive design.

Emerson Superheterodyne Radios

The last word in radio receivers. Everyone appreciates the marvelous tone quality, selectivity and pep of the Superheterodyne circuit—and the Emerson outranks them all.

Employs the Power of Pentode and Vari-Mu Tubes

Emerson Radio and Phonograph Corp.
641-649 Sixth Avenue
New York, N. Y.

Model E-70
$69.50
COMPLETE WITH 8 TUBES

Model E-80
$79.50
COMPLETE WITH 8 TUBES

Ask your dealer to demonstrate the Emerson—otherwise write us direct.

Dealers—Here is the double duty set, thousands in your territory have been waiting for. Write for details NOW.
manufacturers, but from 1933, after a name change to Emerson Radio & Phonograph Corp., commenced making radios. At this time the company specialised in the manufacture of midget AC/DC chest models and eventually adopted the slogan—"The World’s Biggest Selling Little Radio". Included in this line of sets was the now famous "Mickey Mouse" model.

However, as far as the N.Z. market was concerned Emerson was a late starter, presumably because no one had taken up the agency, and furthermore because the line of 110-volt AC/DC midgets was unsuited to local conditions.

So it was that not until 1937 did the name Emerson appear in this country, by which time the company was making a wide range of models. The N.Z. agents were the Carrick Wedderspoon Co. of Wellington who in November 1937 were advertising seven different models including a car radio. These were the: R156 5-tube BC, AR173 6-tube DW, AT170 6-tube DW with “Tel-A-Dial”, AR171 6-tube DW chest, X183 15-tube AW console, C134 8-tube (table or console) and U154 car radio.

However, within a year of the name Emerson becoming established on the N.Z. market the axe fell in the shape of import restrictions which came into force in 1938. So, although a few 1938-39 models were seen here further importation was effectively prohibited thus making Emerson one of the most short lived names to appear in this country, a fact reflected by the very few Emersons to be found amongst present-day collections.

Throughout most of the period when radio manufacturing took place in California, the only company to hold an RCA licence was Gilfillan Bros. Contained in this licence was a clause permitting Gilfillan to sub-license other West Coast manufacturers, subject to certain conditions being met. Sub-licensees were required to have at least some of their manufacturing work done at the Gilfillan factory, with the option of having the complete chassis made by Gilfillan.

Because, during the early 1930s, most radios produced in the Los Angeles area were of the so-called "midget" variety, Los Angeles became known as “The Midget Capitol (sic) of the World". It is
certain that more different brands of midget radios originated in the West Coast area than anywhere else in the United States.

A surprisingly large number of these midget sets found their way to New Zealand, evidence of this being provided by the many different remaining examples to be found in the hands of present-day N.Z. collectors. For the sake of convenience, illustrations of all such sets have been grouped together in this section of the book.
Cross index of Majestic model, chassis and model names 1931-32

Model 20 8-valve superhet 1931

Model 293 9-valve chassis 290 1932

Model 291 9-valve chassis 290 1932

Models 93 and 493 1933

Model 44 4-valve 1933

Model 491 6-valve 1933

Model 570 7-valve with “Tunostat” 1934
Chassis 50 8-valve superhet
model 51 consolette 1931

Farmer’s Trading Co display of Majestic radios at the annual Auckland Winter Show. July 1932.
Presenting Radio's Newest Miracle—

PHILCO Tone-Control

BRILLIANT
BRIGHT
MELLOW
DEEP

4 shades of tone value with Philco Tone Control. Now with your own hand you can reach out and with a knob on the front of the receiver instantly change the tones of Radio stations and programmes to suit your tastes and moods—BRILLIANT, BRIGHT, MELLOW, DEEP—whichever you prefer.

AND FINALLY, for Radio stations which come in harshly in your locality, or marred by interference, you can subdue the noise and enjoy many additional fine programmes.

All of these great features are retained and Philco Tone Control is added. Philco's new Radios are all you can buy in Radio no matter what you pay. The Philco Screen Grid Plus has, in addition, AUTOMATIC VOLUME CONTROL which countersets fading.

This is a special feature of the new Philco Radio, designed so that you can not only get, but hold and enjoy, programmes of a varied selection.

Arrange a Free Demonstration in the quiet of your own home, and judge for yourself, or call on us for all particulars.

Sole New Zealand Agents:

"Beagas"

CHAS. BEGG & CO. LTD.

Auckland, Wellington, Christchurch, Dunedin, Invercargill, Nelson, Timaru, Oamaru
ABOVE IS MODEL 112X Balanced Superheterodyne, eleven tube, Automatic Volume Control, $150. Other Philcos from $36.50 to $295, complete with Philco Balanced Tubes, including new Pentode Power Tube, illuminated station recording dial, hand rubbed cabinets, and many other exclusive Philco features ... Also Philco Balanced Tubes for replacement, Philco Short Wave Converter, Philco Transistor for motor cars and boats, Philco Electric Clock and Radio Regulator.

PHILCO
A musical instrument of quality

SUPREME...

Model 45E 6-valve 2 band 1934
Model 60E 5-valve 2 band 1934
Model 37-60EZ 5-valve 2 band 1937
Model 37-620E 6-valve AW 1937
Model 38-7EZ 6-valve 2 band 1937-38 Featuring "Cone Centric" automatic tuning.
Model 37-650E 8-valve AW 1937
Model 38-9 EZ 6-valve 1938
Model 38-2670 11-valve 5 band 1938
Model 38-5EZ 7-valve 2 band 1937-38
PILOT

Pilot radios were originally made by the Pilot Radio & Tube Corp. of Lawrence, Mass. and later, after 1933, by the Pilot Radio Corp. of Long Island City, New York. The New Zealand distributors were originally Harringtons Ltd who went out of business in 1935. The agency was then taken up by Fisher & Paykel Ltd who imported chassis which they fitted into cabinets made by G. C. Goode & Co.

Model S157 6-valve SG 1931

Catalogue No. 40172 7-valve superhet 1931

Model 253 5-valve 4 band (LW) 1936

Catalogue No. 40172 7-valve superhet 1931

Model X63 6-valve 4 band LW export model 1935

Model X41 4-valve BC 1935

Model H762 8-valve AW 1938

Model 213 7-valve 4 band (metal valves) 1935-36

Model 200 5-valve AC/DC or 150 5-valve battery 1936

Model 103B 5-valve DW 1936

Model 193B 5-valve 1936

Model 393B 7-valve AW 1936
The Big, Smashing Thrill of MODERN RADIO
"Programs from All the World"

PILOT "ALL-WAVE"
Super Heterodyne
11 TUBES!

Pilot’s new ALL-WAVE is two sets in one! A standard 7-tube superheterodyne chassis in combination with a 4-tube converter. Pulls in everything from 11 to 550 meters. No coils to plug in. Nothing to change. Just a flick of a switch to turn from long-wave to short-wave. As simple to operate as an ordinary receiver. Converter has own power pack and rectifier tube, and more signal strength than ever before possible. Six wavelength tuning stages. No regenerative distortion. Now you can hear England, Holland, Rome, Australia, Honduras and other short wave stations as well as local stations with good broadcast quality and volume. Your dealer will be glad to demonstrate the new Pilot 11-tube superheterodyne ALL-WAVE for you.

**Table Model**
$99.50
Complete with tubes

Pilot Radio & Tube Corp.
Lawrence, Mass.
Send me complete information about the new 11-tube superheterodyne ALL-WAVE.
Name:..............
Address:..............

PILOT VALUE IS MORE THAN PRICE DEEP
The first receivers marketed by RCA were made by the General Electric Co. and Westinghouse and were sold under the name “Radiola”. This name was relinquished in favour of “RCA Victor” when RCA became a manufacturer in 1931. In New Zealand RCA sets were normally marketed under the name His Master's Voice (HMV), though a few have been sighted with RCA Victor markings. Due to the earlier establishment of import restrictions in Australia, no American Radiola receivers were seen there after 1929 and no RCA Victors ever reached the market at all.
Model R7 "Superette" 8-valve superhet 1932
Note difference in dial escutcheons.

Model R-7 "Superette" 8-valve superhet 1932

Model 115 5-valve 1933

Model 114 5-valve AC/DC 1933

Model 4T 4-valve 1936

Model 118 5-valve 1934

RCA-HMV 6-valve DW model 96T6 (vibrator) 1938

RCA-HMV 6-valve DW model 96T6 (vibrator) 1938

RCA-HMV 7-valve AW model 87T2 1938

RCA 15-valve bandspread model HF8 1939
Tune over the "Thrill-Band"
(17-200 METRES)
WITH A
SILVER-MARSHALL
Screen-Grid
"ROUND-THE-WORLD" FOUR

Get the thrill of listening to foreign broadcast programmes ON THE SPEAKER!!

THE S.M. "ROUND-THE-WORLD FOUR"
—is a complete short-wave receiver and two-stage audio amplifier, and the whole range between 17.4 and 204 metres is covered smoothly and efficiently. A Revelation in Short-Wave Reception.

LET US SEND YOU SPECIFICATIONS AND OUR OFFER.

BOND & BOND, LTD., Box 331, Auckland

Model 105 7-valve superhet 1931

"Bearcat Cadet" 7-valve superhet 1931

Masterpiece II 12-valve 1933-34

Model 782 8-valve "Bearcat Midget" 1931

Megann's
RADIO SERVICE
Howden's Building, Bond St., Wellington.

Masterpiece V 20-valve 1936

Model 15-17 15-valve 1938
SPARKS-WITHINGTON CO. (Sparton)

Model 30 10-valve superhet 1931

Model 15 8-valve 1931

Model 28 13-valve 1933

Model 427 4-valve 1936

Model 67 6-valve DW 1935

Model 5 5-valve TRF 1931

Model 10 7-valve superhet 1931

Sparton

CHOOSE YOUR RADIO AS YOU WOULD AN EXPENSIVE CAR

Be sure it has the latest engineering features—that it will BRING IN STATIONS ALL OVER THE WORLD at ease

The "Sparton"

Gives you Everything

THE NEW ZEALAND EXPRESS COMPANY LIMITED
Towards the end of 1924 one Fred W. Stein of Atchison, Kansas was advertising a “Steinite rectifier” which, it was claimed, “takes the place of a crystal”. In those days it was common practice to use the suffix “ite” on propriety brandnames of crystals—e.g. “Hertzite”. When Stein started to manufacture crystal sets and small battery sets in 1925 he marketed them under the same name, Steinite. Initially the company name was Steinite Laboratories, but in 1929 this had become Steinite Mfg Co. which remained unchanged after a move to Fort Wayne, Indiana later in the same year.

As far as is known, no Steinite radios were sold in New Zealand before 1929, but in May of that year Radio Ltd were advertising the full range of consoles, plus one 1928 table model, the 261. Steinite consoles were low priced sets and their importation by Radio Ltd was apparently that company’s response to the flood of Majestic consoles then sweeping the local market. However, Steinite “folded” in 1931, before having had a chance to become properly established on the local market, a fact which probably accounts for the scarcity of Steinites in the hands of present-day collectors.
Here's the World's Champion of the Air...

THE NEW SCREEN-GRID

STEWART-WARNER

"The Set With RADIO The Punch"

No champion has been so sensationally successful as the Stewart-Warner Screen-Grid Radio. It has completely knocked out all previous standards of "best" in radio performances. It is so powerful that it brings distant stations booming in with absolute fidelity of tone... so selective that stations which you only know by hearsay are instantly at your command no matter how near you may be to a "local." This success did not just happen—it is not a lucky fluke. It is the result of over 25 years of experience in the production of high-grade electrical equipment... of supervision which insists on unmervelous accuracy in the manufacture of every unit. Ask us for a demonstration and you will both hear and see why the Stewart-Warner has been proclaimed the winner by everyone who has heard it.

Sole District Agents:

WACKRILL & STEWART LIMITED

KIMBOLTON ROAD

FEILDING

Model R-104A 5-valve BC 1932

Model R-102 6-valve BC "Apartment Model" 1932

Model R-106 7-valve BC 1932

Model R-102 CF 6-valve BC 1932

Model R-104 6-valve BC 1932

Model R-301A short-wave converter 1932

Model R-301A short-wave converter 1932

Chassis R-119 6-valve 1933

Model R-125X 5-valve DW 1934 (early model using peephole dial)
Chassis R-109A 6-valve BC 1934

Chassis R-146X 8-valve AW 1936

Model R-125X 5-valve DW 1934 (early model using peephole dial)

Model R-167 5-valve BC 1936

Model R-149X 11-valve 4 band 1937

Model R-125X 5-valve DW 1935 (later version using aero dial)

Chassis R-169X 6-valve AW 1936

Listening in on a Stewart Warner R-105 "Magic Dial" console
Included under this heading are but two of the several brandnames under which sets made by Wells-Gardner were sold. Of these names only two, Airline and Gulbransen, were seen in New Zealand.

The company which grew to be one of the largest suppliers of private-brand chassis in the industry was established in 1924 as the Wells Radio Mfg Co. In 1929 the company was purchased by the Gulbransen Piano Co. as a means of entering the radio business at a time when the piano business was being badly hit by the rapid development of radio broadcasting as a new means of in-home entertainment. However, only four years later the three original founders of the radio manufacturing company, A. S. Wells, G. M. Gardner and F. Dillbacher, repurchased the entire company which then became known as Wells-Gardner & Co.

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Amongst the many brandnames under which Wells-Gardner products were sold in the United States the name “Airline”, owned by the famous American mail order firm of Montgomery-Ward & Co., was one of the most notable.

The “Highboy”

7-valve SG 1931

Model 23 10-valve SG 1931

Nine-in-line 9-valve TRF in highboy cabinet 1929

Model 22B5 12-valve DW chassis 2B 1934-35

True Tone and Perfect Balance

Here at last is a receiver which gives you high notes and low notes clear and true to life, free from distorting excess vibration. You can now enjoy vocal and instrumental music in all its living realism, treble and bass parts being equally audible, and balanced in strict accordance with the actual concert rendering.

GULBRANSEN

53


New Zealand Distributors:

H. W. CLARKE LTD. 182 Wakefield St., Wellington.
Co., was probably the best known. Airline radios were sold in New Zealand in small numbers, the original importers being the N.Z. Express Co. After 1935 the agency was acquired by another firm, Butlers (NZ) Ltd of Christchurch, but the name Airline never became as well known as Gulbransen.

**ONE YEAR AHEAD in**

**TONAL BEAUTY**

**EFFICIENCY**

**ADVANCED FEATURES**

Airline radios have earned special distinction, gaining power and giving suppleness of performance on both broadcast and shorter bands. Fourteen years in the market.

Airline 7-valve AW chassis 7L "Movie Dial" 1937

Airline 5-valve with police band. Chassis 052 1932

GULBRANSEN

WORLD EXPLORER '7' 1936

Model 7K 7-valve DW 1935

Model A14 9-valve AW 1938

Model A1 7-valve AW 1936

Model A15 7-valve DW 1938

Model A14-91 9-valve AW 1938

Airline 7-valve AW chassis 7L "Movie Dial" 1937

Airline 7-valve AW chassis 7L "Movie Dial" 1937

Model 6A8 6-valve DW 1937

Model 7D 7-valve DW 1934

Model 7A 7-valve DW 1934

Model 7K 7-valve DW 1935

Airline 7-valve AW chassis 7L "Movie Dial" 1937

Airline 5-valve with police band. Chassis 052 1932

179
conventional dial but when sold under the Airline name had a most unusual dial using rear projection of an illuminated 35mm film strip on to a ground-glass screen, the so-called “Movie Dial”.

It should be noted that Wells-Gardner was not the only supplier of radios to Montgomery-Ward in pre-war days, other suppliers included Belmont Radio Corp. and U.S. Radio & Television Corp., to name but two.

**ZENITH**

During the short period in which the firm of C. & A. Odlin Ltd marketed Zenith radios in New Zealand a surprisingly large range of models was imported. A locally printed catalogue lists no less than 33, including five car radios, being offered during the years 1937 and 1938. However, this was a long way short of the total number of different models actually produced; a Zenith service manual lists 112 models for the same two years.

After 1936 Zenith introduced a new alphabetic system of model identification which is coded as follows: the first numeral(s) indicates the number of valves, the following letter indicates a broad classification of power source and band coverage, the final three numerals indicate the cabinet style and year of issue. To simplify matters

<table>
<thead>
<tr>
<th>Model</th>
<th>Valves</th>
<th>Cartridge</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>L22</td>
<td>5</td>
<td>SG</td>
<td>1931</td>
</tr>
<tr>
<td>250</td>
<td>9</td>
<td>AW</td>
<td>1932</td>
</tr>
<tr>
<td>7L</td>
<td>9</td>
<td>AW</td>
<td>1931</td>
</tr>
<tr>
<td>550-3</td>
<td>9</td>
<td>AW</td>
<td>1931</td>
</tr>
<tr>
<td>288</td>
<td>8</td>
<td>5B</td>
<td>1934</td>
</tr>
<tr>
<td>829A</td>
<td>7</td>
<td>DW</td>
<td>1934</td>
</tr>
<tr>
<td>807</td>
<td>5</td>
<td>DW</td>
<td>1935</td>
</tr>
<tr>
<td>5S127</td>
<td>5</td>
<td>3-band</td>
<td>1937</td>
</tr>
<tr>
<td>5S-127</td>
<td>5</td>
<td>3-band</td>
<td>1937</td>
</tr>
</tbody>
</table>

Zenith “Stratosphere” 1935 model 1000Z chassis 2501, 25 tubes, 3 speakers, 5 bands has short-wave coverage down to 4.7 metres. Uses 8 type 45 tubes in double push-pull parallel.
examples of those models found in New Zealand are listed.

### 1937

<table>
<thead>
<tr>
<th>Chassis</th>
<th>Used in models</th>
</tr>
</thead>
<tbody>
<tr>
<td>5401</td>
<td>4B106, 4B131, 4B132</td>
</tr>
<tr>
<td>5635</td>
<td>6B107, 6B129, 6B164</td>
</tr>
<tr>
<td>5516</td>
<td>5S119, 5S126, 5S127, 5S150, 5S151, 5S161</td>
</tr>
<tr>
<td>5633</td>
<td>6D116, 6D117, 6D118</td>
</tr>
<tr>
<td>5707</td>
<td>7D119, 7D126, 7D127, 7D138</td>
</tr>
<tr>
<td>5634</td>
<td>6S128, 6S137, 6S147, 6S162</td>
</tr>
<tr>
<td>5801</td>
<td>8S129, 8S154</td>
</tr>
<tr>
<td>1004</td>
<td>10S130, 10S155, 10S156, 10S160, 10S147, 10S153, 10S157</td>
</tr>
<tr>
<td>1203</td>
<td>12U158, 12U159</td>
</tr>
<tr>
<td>5520</td>
<td>5M191</td>
</tr>
<tr>
<td>5637</td>
<td>6M192, 6M193, 6M194</td>
</tr>
<tr>
<td>5803</td>
<td>8M195</td>
</tr>
</tbody>
</table>

| 5408    | 4F227 |
| 5409    | 4B231 |
| 5521    | 5S201, 5S218, 5S220, 5S228, 5S237, 5S250, 5S252 |
| 5526    | 5R216, 5R226, 5R236 |
| 5524    | 5J217, 5J247, 5J255 |
| 5522    | 5F233, 5F251 |
| 5639    | 6D202, 6D219, 6D221, 6D238 |
| 5638    | 6S203, 6S222, 6S223, 6S239, 6S241 |
| 5642    | 6J230, 6J257 |
| 5644    | 6S254, 6S256 |
| 5710    | 7D203, 7D222, 7D223, 7D229, 7D239, 7D241, 7D243, 7D253 |
| 5709    | 7S204, 7S232, 7S242, 7S258, 7S260, 7S261 |
| 5711    | 7J232, 7J259 |
| 5905    | 9S204, 9S232, 9S242, 9S244, 9S262, 9S263, 9S264 |
| 1201    | 12S205, 12S232, 12S245, 12S265, 12S266, 12S267, 12S268 |
| 1501    | 15U246, 15U269, 15U270, 15U271, 15U272, 15U273 |

### Classification

- **J** = 6-volt (vibrator) and AC
- **M** = car radios
- **R** = AC broadcast only
- **S** = AC with one or more SW bands
- **U** = AC AW and USW band

Examples: 5S219 = 5-valves AC dual-wave 1939
8S219 = 8-valves AC all-wave 1937
7J239 = 7-valves AC/Vib. 1938
12U159 = 12-valve AC w/- USW 1937

### Additional information

Certain consoles when fitted...
with chassis normally used only in table models carry a final numeral in their model numbers. For example—6J230 becomes 6J23A when in a console cabinet with an 8" speaker.

SOME EXAMPLES OF THE FAMOUS “TRANSOCEANIC” PORTABLES

Model L600 chassis 6L40
Model 7G605 chassis 7B04
Model H500 chassis 5H40
Model G500 chassis 5G40

MISCELLANEOUS—U.S.A.

Apex Gloritone 8-valve AVC, model 8A 1931
Apex Gloritone 7-valve AVC model 7A 1931
Audiola 10-valve 4 band model 33S10 SW 1933
Airline 7-valve 4 band model 62-47Y (mfd by U.S. R. & T. Co.)
Rear view showing twin 6½ inch speakers.
Brandes 8-valve TRF model B15 1929
Browning-Drake 9-valve SG model 54 1930
The Sign of Musical Prestige!

Brunswick RADIO

Scientifically designed Instruments. Economically Priced. Faithfully Reproducing with Musical Quality all Broadcast Programmes.

MODEL 11

Instruments with a background of achievement...from Midgets to Short- and Long-wave De Luxe Models.

Wholesale Distributors for N.Z.:

BRICE & BRICE, LTD.
20-22 Victoria Street, Wellington.

Brunswick model 11, 7V superhet 1931 (illustrated at left). It used a unique triple-concentric combined tuning, volume and tone control and a unique 'turret' ganged tuning condenser.

Erle 7-valve AW 1935
Echophone "Echoette" 4-valve SG type 40 1932
"The Eagle" 4-valve SG 1932

Fada 7-valve 3-band model 164T 32-volt DC 1935
Fada 7-valve BC 1934
Fada 7-valve model 51 1931

Case 7-valve 3 band model 27 1936

Dayton 7-valve TRF model AC63 1928

6 VALVES AND RECTIFIER

Wholesale Distributors for N.Z.

BRICE & BRICE, LTD.
TRADE YOUR RADIO
for latest model 10 tube Superheterodyne

WHY not use your radio to help you pay the cost of the very latest type 10-tube Superheterodyne. With this plan you receive the real value of your radio and... your new one costs you far less than you could possibly buy elsewhere.

10 TUBE VIKING
2-SPEAKERS
No finer radio... selectivity to separate stations 10 kilocycles apart... no lap over of stations. Extreme distance stations come in like locals... coast to coast, including Canada, Mexico and Cuba. TWO SPEAKERS, bass and treble; tone unsurpassed.

DEAL DIRECT WITH FACTORY
Receive far more for your radio and your new 10-tube VIKING costs you far less. Here is your real chance to own the most modern in radio and... make your radio help pay the cost. You'll want to know all about this new plan... don't buy another radio until you receive our offer. Learn what your radio is worth... you'll be very pleasantly surprised.

SAVE MONEY... WRITE TODAY
Don't fail to write today regarding this unusual offer. Learn what your radio is worth... all you need do is send a full description of your radio. By return mail you will receive full information about the 10-tube VIKING; with two speakers... also our allowance for your radio in trade for this modern, latest model new VIKING. So offer ever before like this. Here is your first real opportunity to get that new radio you've been wanting.

Cabinet-42 high,15 deep,24 wide

MAIL THIS COUPON
OZARKA, INCORPORATED,
1275 Fullerton Avenue,
Chicago, Illinois.

How much will you allow me for my radio?

No. of tubes ........... Electric or Battery ............
Size of Cabinet ........... Age ............
Model No........... Mfrs. Name ............
Name ............
Address ............

Licensed
R.C.A. and Hazeltine Patents

OZARKA
INCORPORATED
MANUFACTURERS QUALITY RADIOS SINCE 1921
1275 Fullerton Ave.
CHICAGO, ILL.
Feb, 1933

Latest No. 59
7-prong tubes
General Motors 7-valve superhet model 250C chassis S-1-C 1931

Gibsonola 7-valve superhet (mfd by Audiola Radio Co.) Model 7SP 1931

Grebe 8-valve superhet model 89 1933

Lyric 7-valve superhet model S7 1932

Lyric 8-valve battery set model B80 1932

Lyric 6-valve DW model 19A68LY 1934

Ozarka 5-valve superhet (mfd by Belmont) 1931.

Silcox 6-valve 2 band type 19A-66 1936

Stromberg-Carlson 7-valve 1928

Silvertone 6-valve 3 band 1937

Meets the demand for a quality combination of Radio and Bar. $95 up—complete with glassware, etc. A money-maker. Can be supplied without chassis.
When the first electrically reproducing phonographs arrived on the scene around 1927 they were bulky, expensive and, by the standards of only a few years later, extremely inefficient. For example the Kolster 500 amplifier and power pack alone weighed 35 lbs and required 200 watts of mains power to produce a puny 1.6 watts of audio output!

These drawbacks were sufficient to prevent the first electric phonographs from becoming popular for home use, though for a short period they were used commercially for providing music in such public places as restaurants and tearooms. Only when combined with radio receivers did they achieve any degree of popularity, though by then it was a moot point as to whether "combinations" were radios combined with phonographs or phonographs combined with radios.

In the early days four firms in particular first produced electric phonographs and then combination models. Of these probably the Brunswick "Panatrope" became the best known name in the field, followed by Columbia, Sonora and RCA-Victor. Presumably to distinguish their products from earlier acoustic models these firms generally assigned special names to the new phonographs. In addition to Brunswick’s Panatrope there was Sonora’s "Melodon", though this name seems to have been used only when referring to combination models, i.e. "Melodon with Radio". Similarly Brunswick named their combinations "Panatrope with Radio", the juxtaposition of the words presumably reflecting the phonographic origins of the firms. RCA-Victor’s first-in-the-field offering was known as "Electrola", and in combination form as "Electrola Hyperion" and later as "Radio Electrola".

Kolster model 500 amplifier used in the Columbia electric phonograph. The metal chimney housed a UV-876 ballast tube. Output=1.6 W 1927

186
hence the letters “RE” in the early Victor model numbers. By comparison, Columbia contented themselves with applying the words “Viva Tonal” to their productions.

While “electric” phonographs were of American origin at least one such machine was produced in the U.K. The Gramophone Co. Ltd (HMV) marketed their “Electrical Reproducer” in 1928, it being notable for the use of a special moving-coil speaker having a flat (stretched) metal diaphragm 29 inches in diameter. A pair of DET1 transmitting valves in push-pull provided the output.
INTRODUCTION TO THE CANADIAN SECTION

In view of the fact that Canada was a British country, remarkably few Canadian radios were ever imported into New Zealand in the days when "Buying British" was part of "Being British". Actually there was really only one Canadian manufacturer whose products were seen in this country, if the importation of a few crystal sets back in 1923 is not counted.

The company in question was originally named the Standard Radio Mfg Co. Ltd and owned by Edward S. Rogers of Toronto. Sets produced by this firm were sold under the name "Rogers Batteryless" and first appeared in 1925. However, there is no record of Rogers radios being sold in New Zealand before 1929, though some two years earlier a Canadian built receiver bearing an unfamiliar name made a brief appearance.

Towards the end of 1927 a completely new name suddenly appeared on the N.Z. market, that of "Raleigh". Advertisements published in December 1927 were filled with claims as to the superiority of this new radio which had seemingly sprung out of nowhere. Just who was behind the name and where did it originate? The only solid fact to emerge from all the "hype" was that Raleigh radios were made in Toronto, Canada; that much was plainly stated in the ads. However, a claim that they were made by "the largest Radio Manufacturer in the British Empire" was open to question. At the time the only Canadian manufacturer with any claim to being "British" was the earlier mentioned Standard Radio Mfg Corp., but even this firm had strong links with De Forest-Crosley Ltd, a Canadian offshoot of two well known American concerns. From available evidence it is obvious that Raleigh radios must have been made by Rogers, but their sudden and brief appearance in New Zealand remains unexplained to this day.

As was common practice at the time, local importers often concealed their identity behind post office box numbers and in this case one such number advertised was Box 462, a number known to have belonged to Spedding Ltd. Although by 1927 this firm was an established importer, the reason for their involvement with Raleigh can now only be guessed at.

In spite of repeated claims to being "All British", Raleigh radios not only bore a strong resemblance to American Crosleys sets of the period but one model, the "Super Trirdyn", even used the same American model name. Furthermore, another model, the "Conway", carried a De Forest-Crosley nameplate prominently placed on the front panel!

The sudden arrival and equally sudden departure of the Raleigh name must, now as then, be a cause for speculation as to just who the promoters were and what lay behind this short lived venture. Apart from a solitary advertisement appearing in a Melbourne radio publication in August 1927, no other information has ever come to light. The fact that not a single example of any Raleigh model has survived in either Australia or New Zealand is a pretty good indication that very few were ever sold.

Edward S. Rogers became interested in the idea of "all-electric" operation of the household radio receiver as far back as 1924, a time when few people anywhere else in the world had even considered the possibility of such a thing. By 1925 Rogers had developed an indirectly-heated AC tube based largely on the American McCullough/Kellogg design whereby the heater connections were taken to the top of the bulb.

It was in this year that the first Rogers radio, using these special tubes, was produced. Known as the "Super AC Batteryless", it was really no more than an "electrified" battery set, a typical three-dial TRF of the period using Rogers AC tubes in place of the usual 201As.

The Canadian radio industry was, not
AT LAST! —
A World-Leader in Radio Receivers that is
ALL BRITISH
The "Raleigh"

Manufactured in Toronto, Canada, by the largest Radio
Manufacturers in the British Empire.

Canada's Wonder Industry

Rook a small manufacturing plant employing a few dozen operators, to
a huge factory with hundreds of employees, completely manufac-
turing a comprehensive line of sets, speakers, and power devices—
from a production of a few complete sets per day, to a daily output
exceeding the hundred units—from a purely local market, to a
world-wide chain of agencies, including control of one of the pioneer
radio manufacturers of the Canadian Union, is the astounding four
years' growth of this remarkable young Canadian company.

Managed by British-born, and British trained, the company's policies
and philosophy of high quality and service are the results of
thirty years' experience in the electrical industry. The company's
products, both complete receivers and parts, are designed and manu-
factured with a view to giving the purchaser the best possible service.

The HASTINGS
One of the Royal Series

The Hastings is a unique design, with a beautiful cabinet and mar-
tial beauty, and is one of the Royal Series receivers. The cabinet is
completely assembled in Canada, and is made of solid wood.

The BALMORAL
One of the Royal Series

The Balmoral is another of the Royal Series receivers, and is
similar in design to the Hastings. It is a beautiful cabinet, and
is made of solid wood, and is completely assembled in Canada.

The ROYAL SERIES

Altogether Superior to any other Wireless You've
Ever Heard or Seen

The Balmoral is the finest receiver available in Canada, and is
considered to be the finest receiver available in the world.

The WINDSOR
One of the Royal Series

For those who wish to combine the attractions of un-
common beauty with the economical features of a
British receiver, the Windsor is the perfect choice.

The CONWAY
One of the Royal Series

Supreme in its class, the Conway is the greatest value in a
complete set ever put on the market. It is a complete set,
with all the features of a British receiver, and is
available at a price that makes it a great value.

The WARWICK
One of the Royal Series

A handsome radio cabinet, with a beautiful finish,
the Warwick is another of the Royal Series receivers.

The SUPER-TRIRDYN
One of the Royal Series

A three-tube set superior in performance to any three-
tube set, the Super-Trirdyn continues to prove its
popularity wherever it is sold, and is now available
in many colors and styles.

DISTRIBUTORS:

Wanganui.


There will be a Raleigh Dealer in every part of New Zealand. Full list will be published later.

Communication with the Raleigh Representatives.

P.O. Box 1432

23-12-27
surprisingly, always strongly influenced and/or controlled by the offshoots of American companies. Many of these firms set up their own factories, in fact by the 1930s a list of Canadian companies reads like a Who's Who of the American industry. Not only were the receivers American in design but many American components were used in their construction, particularly in the early days.

Although British influence on the Canadian scene was minimal, the Canadian Marconi Co commenced to make household radios during the early 1920s and continued production right through the 1930s. Like all other Canadian-made sets, these Marconi and Marconiphone receivers showed a strong American influence in their design.

---

**CANADIAN PHILCO**

Model 336B 1935
Model 118B 1935
Model 316B 1935
Model 359S 1935
Model 345C 1935
Model 366L 1935

Radiola III 2-valve regen.
Made by Canadian Westinghouse 1924
Rogers model 110 5-valve
"Batteryless Super A/C" 1925

Rogers model 110 rear view of chassis.
A separate power pack was used. 1925

The model 110 was the first
Rogers 'Batteryless' radio.
It used special Rogers AC
tubes which had heater con­
nections at the top of the bulb.

Rogers 5-valve DW
model 4625 1935

Rogers 5-valve SG model 832-530 1929

Rogers model 110 1925

Rogers 8-valve SG model 832-530 1929

Rogers 5-valve BC 1932

Rogers 6-valve 3-band
"Ten-60" type 30C 1936

Rogers 7-valve SG model R741 1931. Note: the "restored"
wooden packing crate does not belong to this set, it is
marked "Model 11-58"

Rogers 6-valve DW model 76R21 1936
Victor Short-Long Wave Radio
Model RO-112-A
$159.50 Complete with tubes
An eight-tube Super-heterodyne utilizing the new high efficiency tubes. Short or long wave reception at the turn of the switch. Automatic volume control. Tone control.
Insert: Victor Short Wave Converter SWA-108
$59.50 Complete with tubes
A three tube short wave unit which converts any modern A.C. radio receiver into a short wave set. Completely covers the short wave band of 14.8 meters to 200 meters. Simplified tuning. Tubes: two UY-224, one UY-227.

Victor Radio R-50
$84.50 Complete with tubes
An eight-tube Super-heterodyne equipped with automatic volume control, full range tone control. Triple-Grid Super Control, Pentode and High Efficiency Triode tubes. Improved speaker. Chassis and condenser are rubber-mounted in a cathedral type Early English cabinet, walnut-veneered. Dimensions: 19 13/16" high, 14 1/16" wide, 11 3/16" deep. Uses the following tubes: three 56, one UX-280, one 247, three 58.
SECTION FIVE

Great Britain

INTRODUCTION TO THE BRITISH SECTION

Although there might not seem enough receivers illustrated here to justify a separate section, it was decided to group them in one place for the sake of convenience in presentation. Because all of the pre-war models shown here were sold in New Zealand this seems reason enough to include them for the benefit of New Zealand readers. In addition it will be found that illustrations of some models have not appeared in contemporary British publications, thus providing another reason for their inclusion here. Also the temptation to include a couple of typically British picture post-cards could not be resisted. Nowadays, such cards are collectibles in their own right, even though they are sometimes classified as trivia.

LISTENIN’!

How jolly to find when you’ve asked the folks round,
The joys of your set to be sharing,
That the Battery’s battered, Condenser condensed,
And the Aerial out for an airing.

Operatic Number
(You are Queen of My Heart to Night).

"Bonzo" listens in c.1924

CRYSTAL SETS.

Fortevox Junior

Transant c.1925
A.J.S. model P2
4-valve battery set 1925

Ekco SW86 6-valve AW
1936

Ekco AW108 6-valve AW
1938

Ekco BV78 6-valve,
vibrator power supply
1937

Ekco AW98 6-valve AW
1938

Ekco PB189 7-valve AW
1938

Ekco 4-valve superhet
model P150 1939

Ekco P149 4-valve regen
1939

Ekco U49 5-valve AW
1946

Burndept 3-valve
superhet battery-operated
4 band 1938

Bush model PB83 5-valve
3 band 1946-47

Burndept type 267 5-valve
AW 1937

Dulci 5-valve 3 band
model MSU4 1947

Ekco AW69 4-valve AW
1938

Ekco P149 4-valve regen
1939

Ekco 4-valve superhet
model P150 1939

Ekco U49 5-valve AW
1946

Ekco model PB189 7-valve AW
1938

Ekco P149 4-valve regen
1939

Ekco 4-valve superhet
model P150 1939

Ekco U49 5-valve AW
1946

Ekco 4-valve superhet
model P150 1939

Ekco U49 5-valve AW
1946
Xmas Price for
the BLUE SPOT
RADIO SET IS
£15/-

The Blue Spot radio set will come to your home complete in a French polished hardwood case, with built-in 66K speaker—more than one million of which are playing in the world to-day—it is a 3-valve district receiver with terminals for a pickup, if you wish to play gramophone records electrically. With good aerial and position many distant stations may be tuned in with the three click-over wave bands.

SOLD BY LICENSED RADIO DEALERS
FACTORY REPRESENTATIVES
SCOTT & HOLLADAY Ltd.
CIVIC CHAMBERS, WELLINGTON.

Build this
Screen Grid
Set Yourself

A BROADCAST and
SHORT-WAVE
SCREEN GRID
KIT SET for £6
(Short-wave Coils and Accessories extra)

Very simple construction - perfectly balanced circuit values essential for Screen Grid success - silvery toned and reliable - a set that you will be proud of for its appearance and performance.

Write or call for Free Constructional notes and circuit diagram.

ABEL, SMEETON LTD.
27-29 Customs St. E.
AUCKLAND. (1928)
SECTION SIX

A Small Miscellany

MADE IN GERMANY—MADE IN JAPAN

Sharp 4-valve SG TRF, made in Japan c.1933. The same company is still in existence today.

Japanese 4-valve TRF c.1933. Made by Yoshida Shik Nippon Denpa. The framework is of polished brass.

Three different Loewe 3-in-1 receivers 1926-29

Interior view of Loewe 2-valve AC receiver

Loewe 3-in-1 with Loewe speaker and accessories 1928

Loewe 2-valve AC operated, type W533 c.1929
TELEFUNKEN
"FAMOUS SINCE THE BIRTH OF RADIO . . ."

Model L666 moving-iron cone speaker. 1928 Note off-centre drive

Model 10 3-valve 1928

Arcolette 3 4-valve AC 1928

Model 4, 4-valve battery set 1928

Model 9W 6-valve AC 1928

1903 TELEFUNKEN 1936
"FAMOUS SINCE THE BIRTH OF RADIO"
Imported for World Wide Reception
TELEFUNKEN "SUPER OCEAN"
Setting a new High Standard in Efficiency and Performance

TELEFUNKEN New Metal-Clad Valves with Side Contact "P" Base.
TELEFUNKEN Pick-Ups, Type 1031 and M81.
TELEFUNKEN Silver Screened Aerial Equipment for All-Wave Bands.
TELEFUNKEN Microphones, Recording Machines, Broadcasting Equipment.
PRESTO Universal Disc Recorders for Highest Quality Commercial Purposes.
Recording Equipment Stocked. Discs 8-inch to 16-inch, Cutting Needles, Playback Needles, Cutting Heads and Pick-Ups.

Sole Agents:
A. M. CLUBB & CO. LTD.
45 KING STREET, SYDNEY
Phone: M 4065
SOME EARLY COMPONENTS

Crystal detectors of the 1920s

Marconi Coherer c.1909

Then and now 1930-1960

Audio transformers 1920s

50 kHz IF transformer 1925

Aperiodic RF transformers 1922-26

Grid leaks 1920s

Tuning capacitor 1925

Valve sockets 1930s
SOME EARLY LOUDSPEAKERS

Amplion type RS
"Radiolux" with internal folded horn 1925

Amplion "Radiolux Junior" type RS2
Left: mahogany, Centre: metal, Right: oak

Amplion AR59 1923

Amplion "New Junior De Luxe" model AR114 1925

Amplion AR9 1927. The last Amplion external-horn model.

Blue Spot, cone speaker, model 99 1929

Amplion "Dragon" AR114 1925

Rothermel (UK) "Microvox" extension speaker using a 5-inch Rola PM speaker 1937

Marconiphone cone speaker model 75 1927

Brown H4 1925

Rola Magnetic speaker 1927

Burnddept Baby 1925

Rola "Recreator" magnetic speaker 1927

Teletone (U.S.A.) internal horn "60 Radiospeaker" 1926

A.J.S LOUD SPEAKERS
—THEY REPRODUCE FAITHFULLY
A. J. STEVENS & CO. (1914) LTD.
RADIO BRANCH, WOLVERHAMPTON, ENGLAND.
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Scrim, Radio Rebel in Retrospect
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Peter Downes, Peter Harcourt (1976)
History of Broadcasting in New Zealand 1920-1954
J. H. Hall (1980)

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New Zealand Radio 1926-1931
The New Zealand Radio Record 1927-1939

The New Zealand Radio Times 1932-1938
Scott’s Radio Handbook 1923-1931
N.Z. Radio Listeners’ Guide 1928-1932

AUSTRALIAN BOOKS AND PERIODICALS

Radio Trade Annual of Australia 1936-1939
Wireless Weekly 1929-1934
Radio & Electrical Retailer 1939-1940
Australian Radio News 1932-33

Australian Radio World 1933-40
Australian Wireless Review 1923-25
The Listener In 1925-33
Radio In Australia & New Zealand 1923-26

BRITISH BOOKS

The Broadcaster Trade Annual 1934-36
The Economic Development of Radio
S. G. Sturmey (1958)

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Irving Settel (1960)
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Morgan E. McMahon (1972)

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Gleason L. Archer (1938) (reprint 1971)
Big Business and Radio
Gleason L. Archer (1939) reprinted 1971
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Rupert D. McLurin
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Morgan E. McMahon (1975)

In addition to the above listed publications, much information has been obtained from the many, many American, British and Australian periodicals of the day, all now defunct. Other excellent sources of information have been the many catalogues, sales leaflets and technical bulletins issued by various manufacturers of the period.
## Index

**A**

- Ace (N.Z.) 111
- Acme (N.Z.) 123
- Airline radios 179, 182
- Air King (Australia) 17
- Air Master (Australia) 18, 85
- Airzone radios 20-24
- Akred Radio Corp. 60, 97
- Airway radio 19
- Aladdin (N.Z.) 98
- Altona radio 111
- Amalgamated Wireless (A/sia) Ltd 14, 24-29
- American Bosch radios 150
- Andrea radios 149
- Ariel radios 137
- Aristocrat radios 86
- Astor radios 14, 56-61
- Atwater Kent 151-153
- Audiola (Australia) 75, 78
- Audiola (N.Z.) 123
- Audiola (U.S.A.) 182
- Australian components 12-14
- Australian crystal sets 16
- Australian General Electric Co. 16, 29, 33
- Australian radio patents 13, 14
- Australian radios 9
- Austin radios 137
- Autocrat car radios 137, 138

**B**

- Badge engineering 14
- Bandmaster radios 30
- Batophone radios 17, 85
- Beale radios 87
- Bell Radio-TV Corp. 99, 100, 101
- Blue Spot radio 195
- Brandes radio 182
- Breville radios 34
- British General Electric Co. Ltd 37
- Bremner-Tully 148
- Briton Electrical & Radio Co. 38, 39
- Briton radios (N.Z.) 137
- Broadcasting in 1923 148
- Browning Drake 182
- Brunswick Panatrope 186, 187
- Brunswick radios 183
- Burndept radios 194

**C**

- Cabinets (Australia) 15
- Canadian Marconi Co. 190
- Canadian radios 188-192
- Carillon radios 138
- Case radio 183
- Citation radios 154
- Collier & Beale Ltd 101-107
- Colonial radios 155
- Columbus radios 116-119
- Colville-Moore 19, 87
- Companion radios 111-113
- Components (Misc.) 198
- Courier (N.Z.) 126-128, 135, 136
- Courtenay radios 119-122
- C.Q. radios 125
- Cromwell radios 102, 103
- C.R.C. radio 138
- Crusader radios 133, 137
- Crystal sets 16, 193
- Crusader radios 133, 137
- Eagles' Nest 178
- Eagles' Nest 178
- Eagle radios 162, 183
- E.C.G. radios 193, 199
- Echophone radio 193
- Eclipse radios 88
- Edison radios 157, 158
- E.L.L. radios 139
- Ekco radios 194
- Electrical Speciality Mfg. Ltd 86
- EMAIL see Emmco
- Emmco radios 27, 39-42
- Elex radio 88
- Emerson radios 159-161
- Empire radio 138
- Ensign radios 104-106
- Etervux (Australia) 89
- Eral radio 148, 183
- Everest radios 98, 139
- Fada radios 183
- Farmers (Australia) 18
- Federal (Australia) 19
- Fisher radio 139
- Futura radios 97
- Galbraith-Robertson 17
- GE (U.K.) 196
- Geophone (Australia) 36, 36
- Genalex radios 35-37
- General Motors radio 185
- Genrad radios 139
- Genwin radios 17, 89
- Gibbons radio 185
- Gilliflower Bros. Inc. 161-164
- Gilliflower radios 161-164
- Globe radio 139
- Golden Bell radio 139
- Golden Knight radio 134
- Goldentone (Australia) 88
- Grebe radio 185
- Griphophone Co. Inc. 164
- Grova radio 139
- Gulbransen (Australia) 43
- Gulbransen (A.N.S.) 102
- Gulbransen (A.N.S.) 178, 179

**H**

- Hagra radio 139
- Harris, A. R. Co. 157
- Haywin radio 139
- Heaco radio 17
- Healing radios 90, 91
- His Masters Voice (Australia) 91
- His Masters Voice (A.N.S.) 109, 110
- His Masters Voice (A.N.S.) 171
- Hotpoint Bandmaster 30
- Howard radio (Australia) 88

**I**

- Invincible radios 97, 98

**J**

- Japanese radios 196
- Johns Ltd 111, 113

**K**

- K-B radio 195
- Kollogg "Wavemaster" 149
- Keough radio 17
- Kolster-Brands Ltd 69
- Kolster amplifier 186
- Kriesele radio 44-46, 185
- La Gloria radio 109
- La Wood radio 139
- Lekmek radios 47-49
- Liberty Five radio 163
- Loewe radios 196
- Loundspeakers 199, 200
- Luxor radio 133
- Lyratone (U.S.A.) 163
- Lyra-Tone (A.N.S.) 139
- Lyra-Tone (U.S.A.) 163
- Lyric radio (U.S.A.) 139
- Lyric radio (U.S.A.) 185
- Leviathan Pty Ltd 10, 11

**M**

- Majestic radios (U.S.A.) 164, 165
- Majestic Radio & Television Co. 185
- Marconiphone (Canada) 188, 189
- McMurdo Silver 173
- Midwest radios 166
- Moderne radios 149
- Mullard radios (Australia) 50
- Mullard radios (N.Z.) 115
- Murphy radios (N.Z.) 140
- Music from the Disc 186, 187

**N**

- National radio (Australia) 17
- National radio (N.Z.) 133, 134, 140
- Neeco radios 140
- Neilson, Oliver J. Pty Ltd 19
- Norden-Hauk 149
- NST-Hollingsworth 89
- Nymph radio 134

**O**

- Olympic radio 89
- Oxford radio 140
- Ozarka Inc. 184, 185

**P**

- Pacific radios (N.Z.) 97, 98, 122, 123
- Page "Six" 123
- Paramount radios 140
- Patterson radios 163
- Peal radios 21
Perfecta radio 17
Peter Pan (Australia) 92
Peter Pan (U.S.A.) 164
Philco (Australia) 54, 55
Philco (N.Z.) 108
Philco (Canada) 190
Philco (U.S.A.) 166-168
Philips (Australia) 50-53
Phillips (N.Z.) 114, 115
Pilot (U.S.A.) 169, 170
Planet radios 141
Plymouth radio 183
Precedent radios 92
Price radio 92
Pye radios (N.Z.) 98
Pyro car radios 92

R
Radiette radio 164
Radiobar radio 185
Radio Corp. of America (RCA) 171, 172, 186
Radio Corporation of N.Z. 116-127
Radio Corp. Pty Ltd (Astor) 14, 20
Radiojoy radios 141
Radiola (Australia) 24-28
Radiola (U.S.A.) 149, 171
Radio Ltd/Radio (1936) Ltd 10, 125, 127, 132
Radiodisc radios 106, 107
Radio Trade Annual of Australia 9
Ramsay radios 11
Ravision radios 92
Raycophone radios 61-65
Regent radio (N.Z.) 98
Regent radio (U.S.A.) 185
Reliance Radio Co. 65
RES radio 141
Rogers radios 188, 191
Rogers-Majestic Corp. 188
Rola radio (U.S.A.) 164
Rolls radio 133

S
Salonola radios 93
Sandison radio 141
Sandel radio 93
Selectra radios 141
Seven Seas radios 141
Seyon radios 95
Sharp radio 186
Sheffield radios 142
Silcox radio 185
Silvaton radios 16, 93
Silver-Marshall radios 173
Silvertone radio (U.S.A.) 185
Silvertone radios (N.Z.) 142
Skyscraper radios 133, 142
Slade radios 93
Sobell radios 195
Sonora Phonograph Co. 149, 186, 187
Sparks Withington Co. 174
Sparton radios 174
Splitdorf radio 149
Standard Radio Mfg Co. (Rogers) 188
Standard Telephones & Cables Ltd 66-72
STC (Standard) Components 71
Stannage radios 82
State radios 107
Steinlite radios 149
Stella radios 107, 124
Sterling radio 93
Stewart radios 141
Stewart-Warner 176, 177
Stromberg-Carlson (Australia) 72-79
Stromberg-Carlson (U.S.A.) 72, 185
Superdine radio 142
Supertone (U.S.A.) 149
Swains radio 19
Syme, W. A. & Co. 94
Symfona radios 94

T
Tasma radios 79-82
Telaverta radios 96
Telefunken radios 197
Telerad radios 143
Temple radios (N.Z.) 143
Thom & Smith Ltd 20, 79-82
Tiffany Tone radio 164
Triumph radio 96
Transformer Corp. of America 154

Troubadour radio (Australia) 40
Troubadour radio (N.Z.) 123
Troy radio 186
Tudor radio 134

U
Ultimate-Ekco Co. Ltd 125
Ultimate radios 128-132
Udisco radios 11, 17, 18
United Distributors Ltd 11, 17, 18
U.S. Radio & Television Co. 186

V
Van Ruyten radios 96
Velco radio 96
Victor Co. (Canada) 192
Viking radio 143

W
Weldon radios 82, 83
Wellmade Ltd 111, 112
Wells, Gardner & Co. 178, 179
Wembley radio 96
Western Electric Co. (Australia) 69
Westinghouse (Australia) 43, 93, 94
Westco radios 134
Westonhouse Radio Ltd 134
Whatamuff radio 19
Wiles Wonderful Wireless 11
Wilks cabinets (Australia) 96
Windor radio 143
Wiseman, J. & Sons 135
World radios 143

Y
Yale radios 134

Z
Zaney Gill radios 186
Zenith radio (Australia) 96
Zenith radios (U.S.A.) 180-182
CORRECTION
The positions of the front cover illustrations numbers 3 and 10 should be transposed.
John Stokes grew up in radio’s Golden Age, having listened-in on his first crystal set in 1929. Then it was that he got bitten by the radio bug and has never really recovered. Later he took up radio as a career and, apart from five and a half years’ service in the Royal New Zealand Air Force during World War II, has spent a working lifetime as a radio and television repairman. During this time he became interested in the history of radio and amassed a vast quantity of books and periodicals which have provided much useful source material for the writing of this book.

Having been for so long engaged in the servicing and repair business he was in an ideal position to observe at first hand the evolution of the domestic radio receiver and the changes which took place in both its inward and outward appearance. From crystal set to Neutrodyne, from TRF to superhet, from battery set to all-electric and finally from valves to transistors, he has seen it happen and so was ideally placed to write about it.

The author is no stranger to technical writing, having for many years contributed a regular column to the New Zealand magazine Radio and Electrical Review and has also contributed articles to The Old Timer’s Bulletin (USA). When the growing world-wide interest in the subject led to the formation of vintage radio groups overseas John Stokes, in 1972, became a foundation member of the N.Z. Vintage Radio Society and today remains editor of the Society’s quarterly journal.

His first book 70 Years of Radio Tubes and Valves was published in the United States. The author’s second book, The Golden Age of Radio in the Home was published in New Zealand in 1986. Second editions of both publications have recently been released.

PHOTO CREDITS
Front jacket: Centrepiece, Ray Knowles; others by the author.
Rear jacket: Figs 1 to 6, Ron Fitzwilliam; others by the author.

ISBN 0 908629 29 X
CRAIGS—PRINTERS AND PUBLISHERS
Between the years 1952-1967 the Bell Radio & Television Co. produced a range of 3, 4 and 5-valve models, all of which were housed in identical cabinets.

Figs 7 to 12. Pacemaker "Leader" AC/Battery portables. Three slightly different models were made between 1950 and 1952.