Marketplace

Advertisements for the next issue must reach the Editor by the 19th April 1993 Ads should be either hand printed or typed on a separate page. Note: no verbal or phone ads will be accepted. Remember to include your name, address and phone number. There is no charge for ads but the NZVRS is not responsible for transactions between members. Address ads to:
Ian Sangster 75 Anawhata Rd. Piha RD1. New Lynn. 1232.

AVAILABLE

Hoard of old radios "rediscovered" after being boarded up for many years in dry storage - including battery sets of the 1920's, metal box sets, bakelites, cathedrals and dozens of tombstones plus early books. All sets unrestored. For list contact Alan Brehaut 22A Cain Street Timaru. Ph. 03-6889501.

Majestic gothic 331 cathedral, original order and all there, will sell $450 or trade Well-Mayde 6 valve S.G. "Rangatira" or Philco Junior cathedral. 1939-49 mantel radios Courier, Philips, and Bush for sale, send for a list. N.Z. chassis from $20 HMV 476B, 507D, 467D, STC KB 730-38. Grahame Lindsey
565 Mt. Albert Rd. Mt. Roskill. Ph. 6255939 fax. 6255938.
Admiralty pat. 4046 tuner/amplifier B19 set complete with coils for 100kHz to 13mHz (6 coil sets) restored and working. SW3 replica 3 valve TRF set with 80 metre coils. Mr. Toomey Ph. 09-5345161.

NZ Radiogram. Six copies, 1944. Six copies 1945. One copy, 1946. Condition varies from reasonable to poor. Available for postage and packing. ($6).
Bob Gilbert, 3 Lyttelton St, Lincoln 8152. Ph. 03-3252834.

Pre-war Ryder Chanalyst good order, no manual. Pre-war signal generator Weston 776 50kHz to 30mHz. German Graetz radio chassis and four speakers 150kHz to 26.5mHz. Offers or would swap for valved communication radios.
Alan Mackway-Jones 10 Crewe Street Dunedin. Ph. 4535176.

Three ZC1 transmitters will swap for one good bakelite or wooden radio.
Mark Mimis c/o Post Office Thames. N.Z. Ph. 07-8682350.

WANTED

Chassis for AWA Radiolette 33, two band square dial, any condition.
Paul Slattery 64 Princes St. Northcote. Auckland 9. Ph. 4808585.

Atwater Kent car radio, any parts. Have tuner for model 91.
Peter Noonan 52 Ruakaka Beach Rd. Ruakaka Ph.09-4328441 evenings.

Lid for a Crosley Gem Box. Will buy or trade.
Dave McLaren 25 Aotea St. Dunedin. Ph. 03-4550693.

Dial scale for Columbus 132 (b.c. version of d.w. model 61) and for columbus 92. Copy of schematic for Brandt digital clock radio series 800 mk.II 8-81.
Knobs for Zenith 7S238 (see p128 Golden Age)
Des Smith 156 Rangitoto Road Papatoetoe. Ph. 2783541.

NOTICE

The Book - "The Golden Age of Radio in the Home" is due to be reprinted early in 1993, probably late February or early March. Price is expected to be the same as before, $38 plus postage. Forward orders are being accepted now. Write

Craig Printing Co Ltd, P.O.Box 99 Invercargill or contact John Stokes 09-6256615

N.Z.V.R.S Bulletin Vol.13 No.4 Feb. 1993
NEW ZEALAND VINTAGE RADIO SOCIETY

See page 6

NEW ZEALAND VINTAGE RADIO SOCIETY

A non-profit organisation devoted to the preservation of early radio equipment and associated historical information

PRESIDENT: Murray Stevenson
82 Waimumu Road
Massey West Auckland
Phone 09-8325414

SECRETARY: David Millett
1/17 Capilano Place
Glenfield Auckland
Phone 09-4434995

TREASURER: Bryan Marsh
20 Rimu Road
Mangere Bridge Auck.
Phone 09-6367712

THE NZVRS BULLETIN is published quarterly in the months of Feb, May, August and November.
Contributions from members are always welcome and should be sent to the Editor.
Opinions expressed by writers are not necessarily those of the Society.

BULLETIN EDITOR: Ian Sangster
75 Anawhata Road
Piha. RD1. New Lynn.
1232.

EDITORIAL CONSULTANT: John Stokes
281-C Hillsborough Road.
Mt. Roskill Auckland 1004

MEETINGS: Regular Auckland meetings of the NZVRS are held on the third Monday of each month as follows:
1992, May 18, June 15, July 20, Aug. 17, Sep.21, Oct. 19, Nov. 16 Dec. 21.
1993, Jan. 18, Feb. 15, March 22, April 19, May 17, June 21.
VENUE: Meeting Room of the Dominion Rd. Methodist Church (at rear of the Church) 426 Dominion Rd. Mt. Eden.

AUCTION SALES of vintage articles are held quarterly in the months of March, June, September and December.

Classified advertisements are accepted from financial members only. See back cover for further details and please observe the conditions as set out.

BACK NUMBERS OF NZVRS BULLETINS

With the exception of Vol.1, Nos 2 & 4 Vol. 4, Nos 2 & 4 Vol. 5 No. 1, all issues are still available. Price is $1.80 for a single copy up to Vol. 10 posted. From Vol. 10 onwards the price is $2.80 per single copy posted.
As up to 12 issues can be posted for the same price as one, you can save money by ordering several copies at one time.
Order from: John Stokes
281-C Hillsborough Rd. Mt. Roskill Auckland.

AUCKLAND MEETINGS CALENDAR

Feb.15: Ultimate with Merv McLeod
March 15: AGM and auction sale
April: Bring and Tell "Transistors"

WELLINGTON AREA MEETINGS

Monthly meetings are held at the Tireti Hall, Te Pene Ave, Titahi Bay at 1 pm on the first Sunday of every month. For further details contact Neville Grubner 27 View Rd. Titahi Bay Wellington. Phone 2366661.

NZVRS LIBRARY

Members are reminded that our library contains a good selection of books plus magazines and newsletters of several overseas societies. A list of publications is available from our librarian: Clarry Schollum 34 Pentland Ave. Mt. Eden Auckland. Ph.09-6307011.

LETTER TO THE EDITOR

When I was about ten years old in England many children started to build crystal sets, and I happened to be one of them. The set I built had a 2-inch diameter coil, about 5-inches long, mounted horizontally and fitted with a sliding contact across the top. Galena crystals were supposed to be the ideal for maximum reception. I lived only six miles NE of Birmingham and received most of the broadcasting stations in the U.K. at that time.

When I was overseas in Egypt during WW2, one of my friends had a portable radio and we used to listen to the BBC as well as Germany and 'Tokyo Rose' from Japan.

After I returned from the War I arrived in Te Awamutu and contacted an old friend who had been wounded in the first World War. He was shot through the back of the nose and used to get terrible headaches and could get very little sleep at night. Someone suggested that he should get a radio to help pass the nights away, which he did.

The first set he got was a 'Brownie' crystal set, which I believe cost 12/6 ($1.25) in those days. When my friend, who was living at Reporoa where I was farming before WW2, told me he could get 2YA Wellington quite clearly at times it got me interested in radio again.

About 1927 the Lamphouse were advertising kitsets and my friend bought a 3-valve battery operated 'Lissen'. After getting it assembled he was quite pleased with it, but it had its limitations. Then the Lamphouse advertised a sensational radio called the 'Micromatic', which was also a kitset. After completing its construction he mounted the chassis in a tea chest. This radio was still working very well after twenty years.

When I was discharged from the army my farm was sold and I opened a second-hand mart where I became interested in radio again and took it up for a hobby. My wife and I used to build a variety of sets, including winding coils and building amplifiers etc. One of the first sets we built was a a two-tuber, which to our amazement brought in the BBC on shortwave.

Since then I have retired to Kawhia and over the years have obtained a fair collection of vintage radios, plus plenty of parts etc. Any members who may be coming this way would be especially welcome, but please ring beforehand. Our phone number is 07 871 0767.

Harold Ault.
Kawhia

R3

RESTORING A 1934 WELDON KITSET

by Graeme Lea

Back in early 1988, not long after joining the NZVRS I was guided to what I thought was a rather unusual looking set - or what seemed to be at least the basic parts. After parting with $5.00 for the privilege of taking away what the owner (and I at the time) thought was a heap of junk the remains were taken home and inspected. As would be imagined it was in a very rough condition having survived at least two floods and numerous owners but it least all components were found to be there including all of the Acorn valve shields with their tops, in fact the only important bits missing were the three original knobs.

With lots of enthusiasm I contacted Bryan Marsh regarding the possibility of a circuit for the beast, his first reaction was no go! - try Aussie. I then worked up the courage and wrote to John Hill c/- Electronics Australia only to find that he apparently no longer wrote articles for them. It was the Editor of Electronics Australia who then referred my letter to Peter Lankshear, who provided me with some very sound and valued advice about my acquisition. Talk about doing the full circle without any result? It was after this that Bryan Marsh suggested I write to Ray Tonks in Australia, who was most helpful in identifying most of the components used on the Weldon. He in turn passed on my letter and photographs to Mr Darryl Kasch who once again did as much as possible. After all it was Darryl who passed my letter on once again to Mr Ray Kelly who just happened to have a similar set in his collection. He and I have corresponded on several occasions over the last few years and it transpires that his particular set was factory built by Bloch & Gerber of York Street, Sydney whereas mine was sold as a kit-set and as such has what is known as a "homebrew" cabinet - and to further confuse things I (and others - I might add) suspected that the set had never operated since the day its assembly was completed!

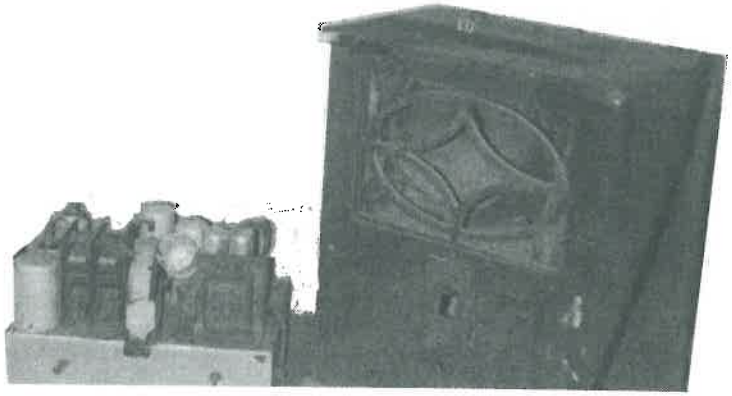
The reason for this is as follows:- after sandblasting and re-painting the chassis and other units the speaker was checked and was found to have a burnt out field coil (2500 ohms is what the label said), so I set to and rewound the coil - lots of time and lots of wire later it was reconnected to the set only to have it go again! It was about two weeks after this setback that I received the circuit diagram from Ray - rewound the field coil again, this time for 1400 ohms as shown (and after asking Mr Bill Farmer for his advice on the matter). This time nothing untoward happened - literally nothing - the set was completely dead.

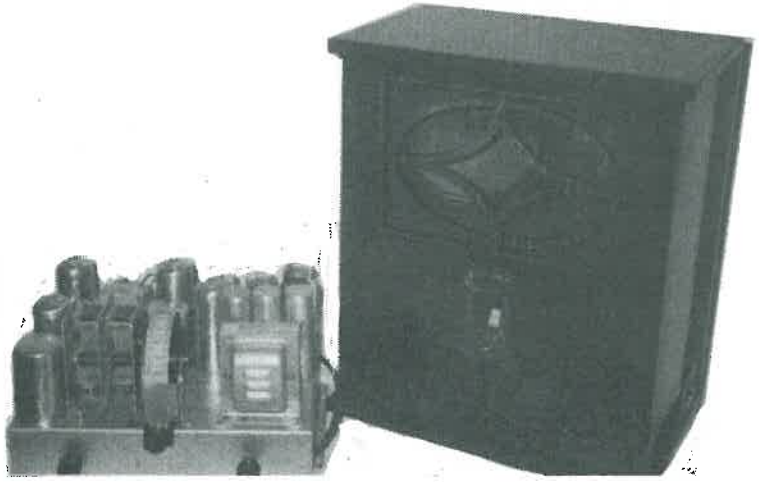
After discussing the set and its numerous problems with Neville Grubner, Murray Hall and others, all of whom have been most understanding and helpful with any problems I have happened across. I then suggested to Neville that I should deliver the set to him during the Carterton Auction in 1992 for major surgery and it was shortly after this that the suspected problems were found:- The real cure was that the set had to be aligned for the first time? After having sorted out somewhat major problems with output stage instability - gratefully assisted by Mr Alan Stanley - the Weldon is now back home now and only needs to have the cabinet fully completed and several other details finalised.

The set uses a pair of 2A5's in the output stage but used in a rather unusual manner. The following quotation being taken from the Wireless Weekly Trade Supplement of january 26,1934.

"A new Weldon receiver has been announced by Messrs Bloch and Gerber which has a special interest because of its variation of the 1934 Superhet circuit. Although the resistance-coupled push-pull effect is there, it is obtained from a cascaded system of connecting the output valves, instead of making,use of the phase reversal in the 55 [2A6] circuit."

In closing this little saga I would like to extend a special thankyou to all those, in both Australia and New Zealand, who participated in the resurrection of what was thought by some to be a worthless piece of junk. I think that the above is really what the NZVRS is all about - thanks everyone!





PHILIPS' FIRST AUSTRALIAN SUPERHET

John W.Stokes

In Australia, receiver manufacture had been commenced on a small scale in 1931 with the production of a 3-valve TRF, model 1203, but appears to have languished somewhat thereafter and not until 1934 did Philips again become active on the manufacturing scene. By this time manufacturers everywhere had turned to the superhet circuit, which meant that it was time for Philips to get into the act too. But where to start?

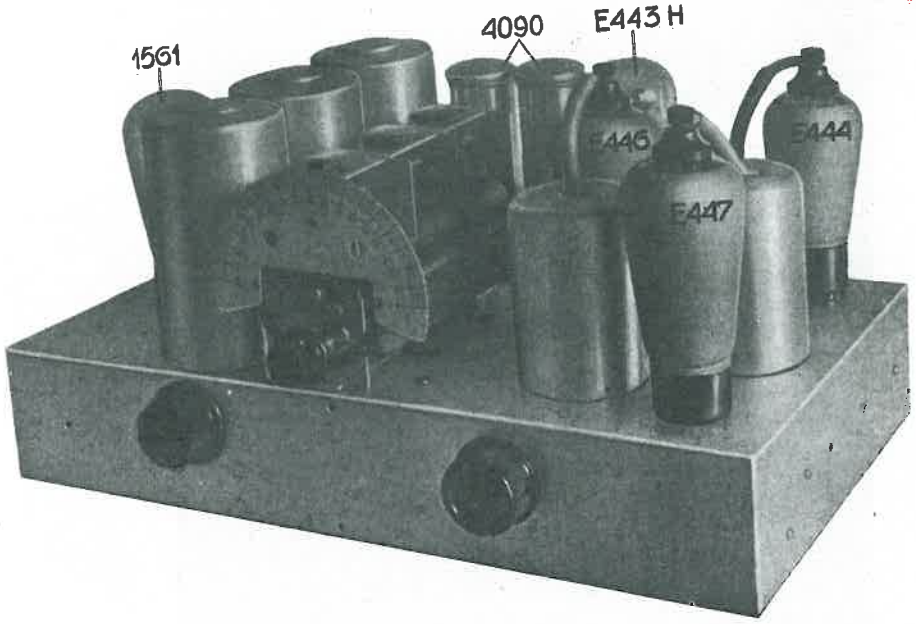
To what extent Philips in Australia were subject to overseas control is not known, but it is a matter of record that the circuitry of the first Australian made Philips superhet closely followed a design which had been published by Philips in Holland in June 1933. At that time they took the unprecedented step of issuing a comprehensive bulletin, printed in three languages - English, French and German - containing a circuit diagram and full constructional details for building a 5-valve superhet. It is interesting to note that it was well over a year later before Philips actually produced a superhet in Europe, and when they did its circuitry bore no resemblance to that published in the 1933 bulletin.

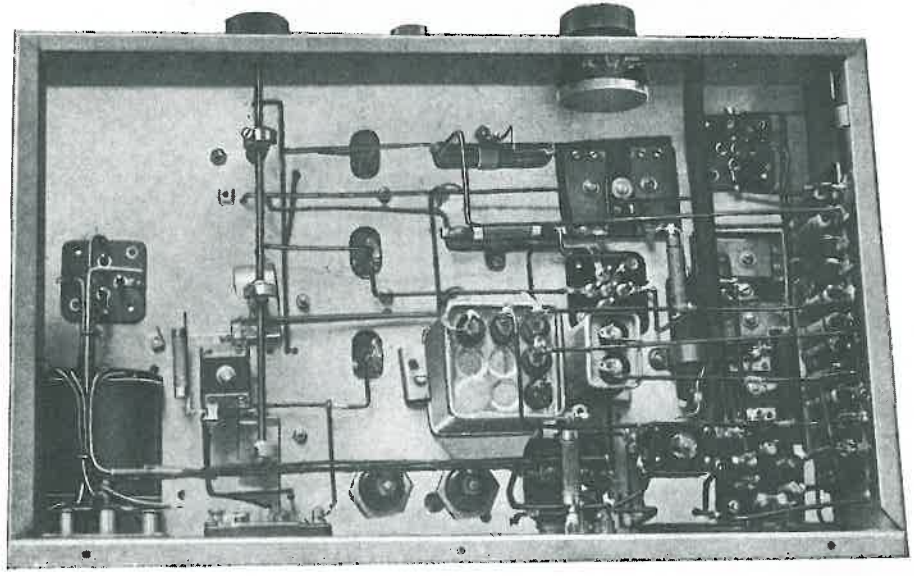
By comparison, the design of their first Australian made superhet, the model 'A', as advertised in September 1934, appeared to be firmly based on the above mentioned data and for this reason it is interesting to see how the two designs compared.* Both used the same valve line-up: E446 as an autodyne mixer, E447 IF amplifier, E444 diode detector combined with tetrode AF amplifier, E443H directly-heated output pentode. The Australian version differed in the following ways:

1. Omission of the long-wave band.
2. Separate primary winding on aerial coil.
3. Manual RF gain control (no AVC)
4. Modified oscillator circuit.
5. Self bias instead of back bias on output valve.
6. Use of 'hybrid' valves, i.e standard 4-volt European types fitted with American style bases.
7. IF changed from 125 to 175 kHz.

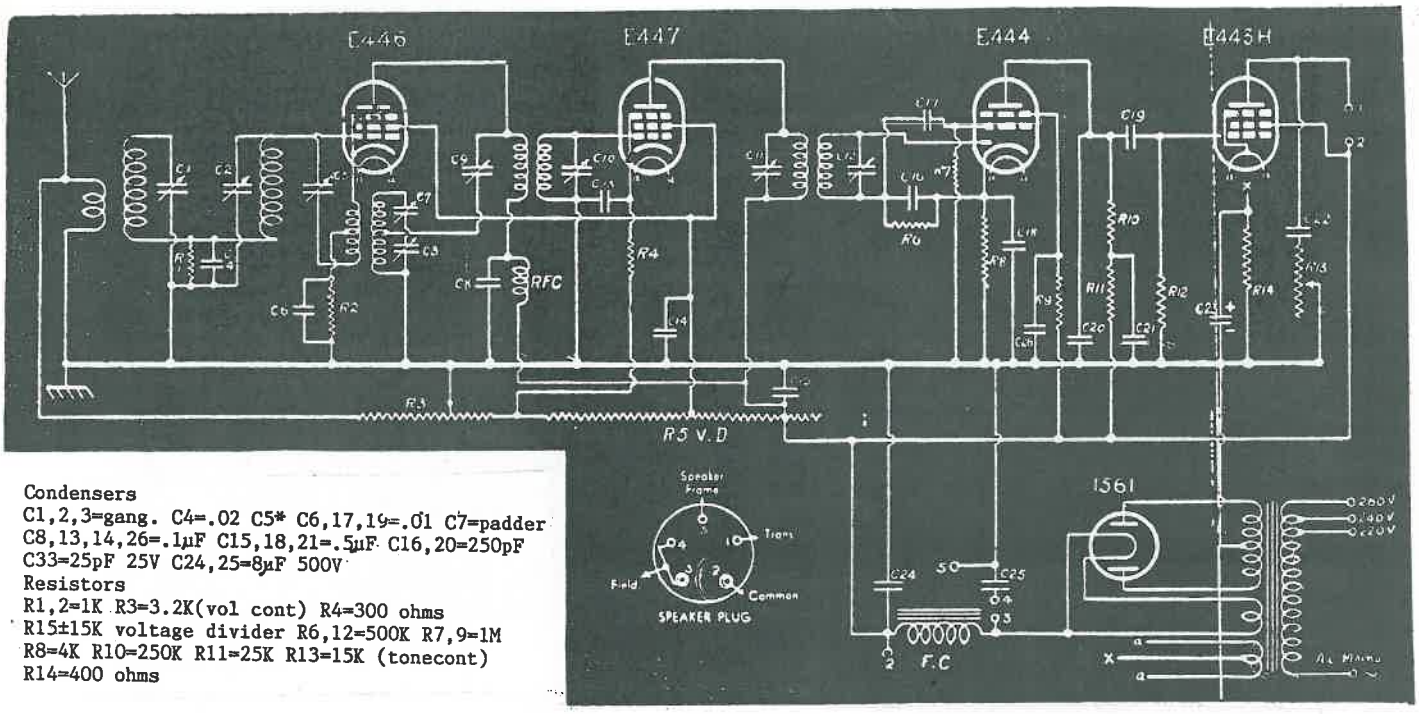
The cabinet used on the model A was in the current full length (legless) console style with a distinctive speaker grille embodying, in modified form, the Philips 'waves, stars and circle' motif. Although this motif had been used overseas on both table and floor model cabinets, it was always in the original form complete with a circular rim or border; in fact this ring represented one of the three ideas expressed in the famous logo. In the vertically elongated form as used on the Australian cabinet it was impossible to include the circular border and thus one of theideas was lost. It would be interesting to know whether this 'modification' had the approval of Philips in Holland, but in the event its use was not continued on any further models, although the 1935 version, model 5501/02, appeared in the same cabinet, presumably to use up existing stocks.

* Incidentally, I once stated that Philips had never used the autodyne mixer circuit in any production model receiver (NZVRS Bulletin 7-4-6 Feb.1987), but this should be ammended to read: any European production model.





Suggested layout for a 5-valve superhet, May 1933



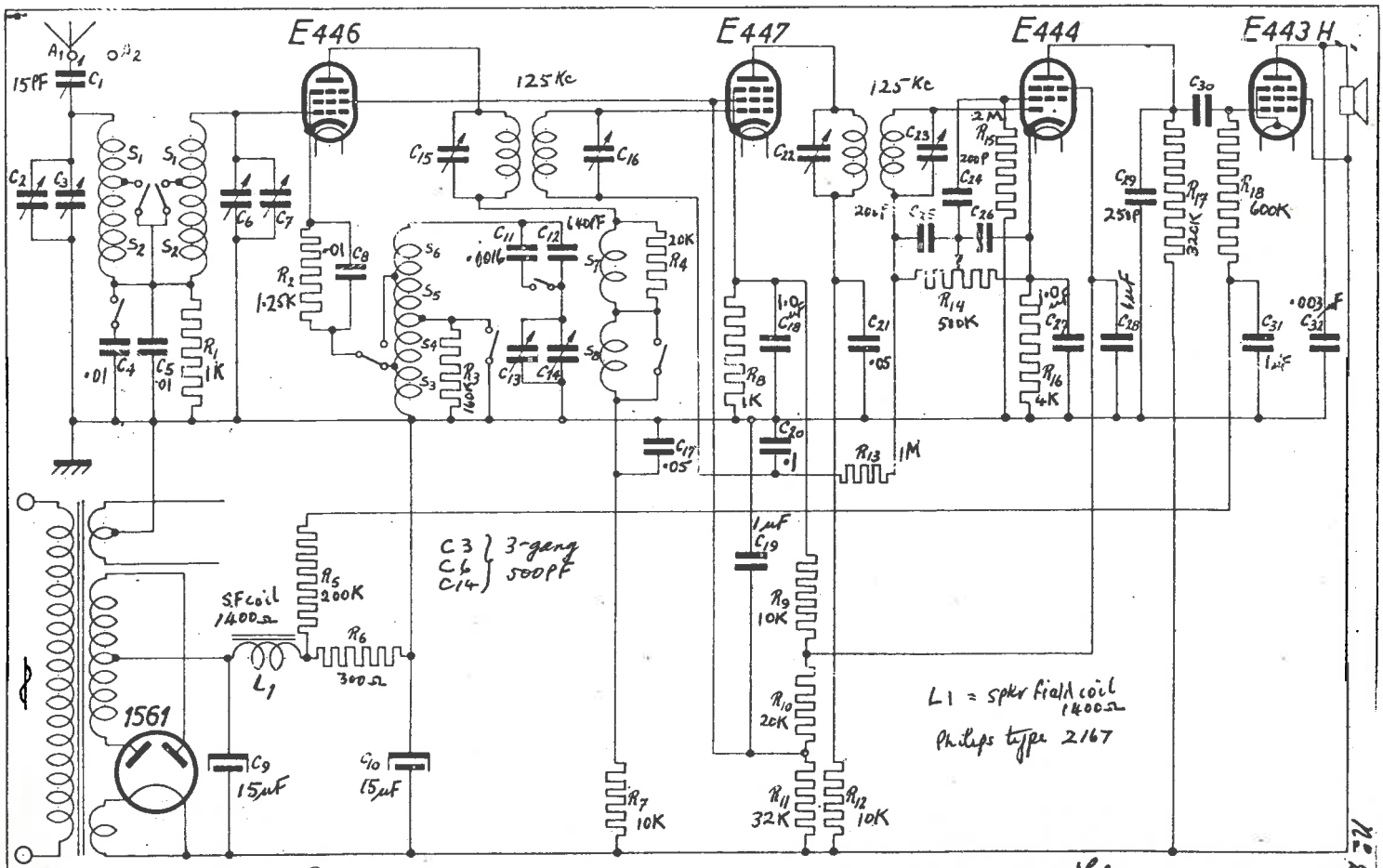
Condensers
C1,2,3=gang. C4=.02 C5* C6,17,19=.01 C7=padder
C8,13,14,26=.1μF C15,18,21=.5μF C16,20=250pF
C33=25pF 25V C24,25=8μF 500V
Resistors
R1,2=1K R3=3.2K(vol cont) R4=300 ohms
R15±15K voltage divider R6,12=500K R7,9=1M
R8=4K R10=250K R11=25K R13=15K (tonecont)
R14=400 ohms

*C5 is a 27pF neutralising condenser pre-set at the factory.

AUSTRALIAN PHILIPS MODEL 'A'

Circuit diagram from
Radio & Electrical Merchant
Oct.19,1934 by courtesy of
Darryl Kasch

identical to precedent F34/4V 226-34



TWIN WAVES AND MORE

by Alan Roycroft

The term "Twin Wave" was given to the BBC's early antenna duplex system that was capable of transmitting two separate programs broadcast by two separate transmitters connected to one antenna system. The Marconi Company, in their early antenna tuning experiments in the 1920's found that by inserting various capacitive and inductive filters in the actual antenna circuits, they could, a, reduce the bandwidth of a transmitter to avoid interference with another station operating in the same vicinity, but also, b, allow the frequency spectrum of the antenna to be used by another transmitter without mutual coupling. This project started when the first British broadcast transmitter, 2MT located near London at Writtle interfered with the BBC's flag station, 2LO when it came on the air in 1925 from Selfridges building in London. Prior to this 2LO broadcasted from a horizontal cage antenna supported by two 50ft masts on the roof of Marconi House also in London.

In the late twenties it was obvious that the noise level from wide DC electrical services and the greater area of listeners a site for a higher power station had to be developed and so Brookmans Park near the Thames Estuary was begun. Peter Eckersley was appointed as the first chief engineer for the BBC in 1923 and under his directions such advances prospered. He designed the Selfridge transmitter and acted as a go between to the Marconi Company. The cost of a new site for what was to become Britain's new regional program was impossible in the early days of the depression so the Twin Wave was adopted and installed at Brookmans Park, Moorside Edge and Westerglen. Today, from different towers at Brookmans Park than that illustrated, 908 kHz and 1214 kHz are radiated at 50 kw each. The only area in the south of England not covered by Brookmans Park on 1214 kHz is near Brighton where a synchronous 1 kw transmitter is located. In 1970 the multiplexing of several other MF services was adopted.

Meanwhile, back at the ranch so to speak, I was chief engineer for around twenty or so stations in Hawaii. Statehood had been passed and considerable expansion was planned for new commercial buildings in Honolulu. We had seven towers that were marked for dismantling to make way for the construction. KAIM and KOHO were the only stations sharing a tower using a very inefficient filter. I was faced with installing a third station, a new KUMU on this same tower. I applied in detail to the FCC for a Construction Permit. Their official position was that several people had unsuccessfully tried to get a third transmitter to work on a single tower, but they did give a Construction Permit with a "be our guest" feeling, loaded with a lot of thou shalt nots tied to the construction.

Although I had done a power of homework and spent consderable time on planning, my midnight to four AM, the only time that was allotted for the off-air work, spanned out to two weeks and then bingo at three AM one morning I found my problems, corrected them and ran audio response and separation between channel tests and finally all was well. When I notified Washington of a successful completion they sent out three senior engineers who went through all the again with a fine toothed comb and finally we got the green light. KUMU commenced broadcasting and the strengths of KAIM and KOHO were improved up to 20% on most radials. This was 1961 and I was deluged with more "trap" system jobs. By 1970 I had completed four or five, some with four stations and one with six stations. The total antenna current for this latter installation was 110 amperes. So in the words of the BBC this was a sextuple wave system.

At the risk of boring you, I must tell of an incident that occurred during the final tests of my first four station system. A senior FCC engineer from our local Honolulu office arrived one night. He was a ham and had taken a small 0-1.5 RF ampere meter out of his rig so that he could measure the leakage current that flowed back into any one of the transmitters not on the air. We

tested by wiring temporarily the small meter in the antenna of each station under test, with the testing tranmitter turned off of course. Mel, the engineer held the small meter in his hand as we ran through the first three, all went well and we finished up testing KORL, a ten kilowatt with a normal forty ampere antenna current. "OK" called Mel, I was tired and I went over to the KZOO transmitter and pushed the plate-on button. "OK next" yelled Mel, I put KZOO off and went over to KIKI, plate on, "OK next" from Mel. Off went KIKI and next was KHVH, "OK" called Mel and then in my advanced stupor I automatically went over to the KORL transmitter for the fourth time and pushed its plate-on button. There was a brilliant white flare arc and an agonised scream from Mel. He did receive a superficial burn on his right hand but the blackened hand and arm and the sudden flare frightened him almost to death. Ever afterwards until Mel retired, he kept the blackened and burnt up meter on his desk at the FCC office, only gently moving it when I happened to have some business in that room.

WAIKATO AREA NOTES

A slightly smaller meeting was held at Frits Willemsens house on the 13th of December with 11 members and one visitor, Peter from Holland, enjoying the hospitality. A new member John Reid from Tokoroa made an enjoyable first appearance along with the Hon Treasurer and Mrs Marsh plus Bob Cook and Ned Matich from Auckland.

As at each previous meeting we had our usual "Bring and Beg", (bring it along and beg someone to take it home). I saw two experts (who shall remain nameless) trying to hock off some ancient equipment in a most enjoyable way that would beat the sellers at the Melbourne Markets. Even old chassis have been known to cause a glint in the eye of an expert who recognises the power transformer, Bryan Marshs discerning eye showed a learned knowledge.

Please keep the 28th March free at 1.30 pm for our next meeting. Probably at Frits Willemsens 42 Challinor Street Pukete Hamilton. This will be confirmed by notice to the Waikato members and Auckland via the Treasurer.

"BOBS SWAP MEET"

Buy, sell or swap radios at Bobs place Unit 3 475 Blockhouse Bay Road Ph.6266241 on Sunday afternoon 28th February, tea and coffee available. Sorry no parking in the drive. All welcome, another chance to engage in that activity some of us love, horse trading old radios!

SUBS-----SUBS-----SUBS-----SUBS-----

Yes, its that time of the year again! Subsscriptions for the NZVRS in the 1993-94 are due on April 1st. A renewal slip is enclosed with this Bulletin.

Bryan Marsh. Treasurer.

NEW MEMBERS

Cowan.G.S.	Lower Hutt
Piggott.K.	Pokeno
Wilkinson.J.C.	Christchurch
Van Veen.E.F.	Papakura
Fishbach.L.P.	Taupo
Alloway.G.	Auckland
Hanna.H.P.	Auckland
McKibbin.A.	Auckland

GETTING THE BEST OUT OF '78' RECORDS

by Alvin M. Taylor

I have wrestled with the thought of submitting an article to the magazine concerning my love, over the years, of the 78 record and its reproduction. Simply connecting the P.U. leads to a variable load across the grid input was never enough for me! So here is my story.

When old enough to absorb the sound from the wind up gramophone, observing at the same time the countless tables going round and round, I became hooked from the start. My grandmother was the proud owner of an Imperial gramophone with its beautifully carved legs and all the trimmings, along with a lively collection of records. The two I remember most were "The whistler and his dog" recorded by Victor in 1926 and "Cuckoo Waltz" on a green label Zonophone. Then along came the first radio set, the Neutrodyne, so graphically accounted for by Peter Lankshear, and the infernal horn speaker, crackles and all. The immensity of the box and its lid which exposed an awesome array of frightening objects somehow hooked me again until my parents purchased one. It didn't perform very well. Why? Because we lived in difficult terrain in the country, so there had to be unusually good conditions to receive anything, despite some 200 ft of wire strung between two trees.

About 1937 my father purchased a Zenith 6S-129 opening up an entirely new world. The 80 metre band and as I well remember, broadcasts from Berlin and London, or Daventry, as it was then known. I remember the antenna well, because on arrival home from school there, proudly fastened to a stick of wood, was the newest of the new. A brush aerial with its length of cable to the arrestor and elaborate wiring to earth and to the back of the receiver.

Here was a much grander piece of equipment than that which it replaced. Now of course I am absoluteley hooked. I have become a subscribing member of the big family of enthusiasts, namely a RAHOB, the Radio Hobbies arm of the Electric Lamphouse in Manners Street, Wellington, and in regular receipt of their monthly bulletin.

Well if Johnny Bloggs down the road can make up a crystal set, then so can I, and it worked. How amazing! I naturally wanted to know why and how and thereupon set about learning Radiotronics the right way. I realised early that I could not pursue the road to radio in a business sense, but that it would remain with me for my lifetime. The next natural progression was the Hikers One and its 49 valve. Subsequently the superhet which now was the only receiver to sensibly consider. TRF has become a NO NO!!

During this period I had been buying the odd 78 record, carefully storing some of them away for safe keeping. Somehow, the sight and thought of a steel needle horrified me. (I still have in my collection discs which have never been played with steel). I began initially experimenting with electrical reproduction using earphone magnets until, along came a XTAL pick up with a sappire stylus, not referred to anymore as a needle. The cartridge did not last very long so I set about using the same stylus suspended in a magnet centre and a few turns of wire. The resulting sound was thin and uninteresting, but I observed quickly that the highs were cleaner than before. I never perfected the infernal thing and reverted to XTAL pickups until after World War II.

During the 50's I met a chap by the name of Baden Winchcombe, a sound engineer in the truest sense and I pay tribute to his memory. Baden was then exploring this science and employing the latest technology available. He put together a very fine unit indeed. This new componentry was infinitely superior to yesterday's and so we have a new era, ushering in excellent transducers from the UK and USA.

By now the talk of the town was the new fashionable D.T.N.Williamson amplifier and the magic of negative feedback, also a far more efficient system of baffle, namely the vented enclosure. I lost no time in putting together the amp (even having the KT66's balanced, until I dropped one and broke it) and balancing the output as per instructions. All of us listening to this system for the first time surely must have been hooked. The best of our 78's were now sounding better than ever. It was here that I began experimenting with negative feedback around the earlier preamplifiers to observe even further clarity and indeed superior to any other circuit type. It is the same arrangement that I use to this day.

I comment just a little further before returning to the 78's. But now the new vinyl LP format had hit the world and for many the 78 was discarded permanently and then not before too long the arrival of stereophonic reproduction. Again I lost no time in building the second Williamson and coupling this to a massive array of speaker units both drivers and flares and an assortment of cones. People would come from near and far to see and hear the brick enclosure, and the huge woofers therein. All of this housed in a room 31 feet in length by 11 feet 1 inch wide. Many an enjoyable evening was spent in the company of friends listening to everyone elses new record collection. I still use some of this gear for listening to early mono, as well as stereo LP's.

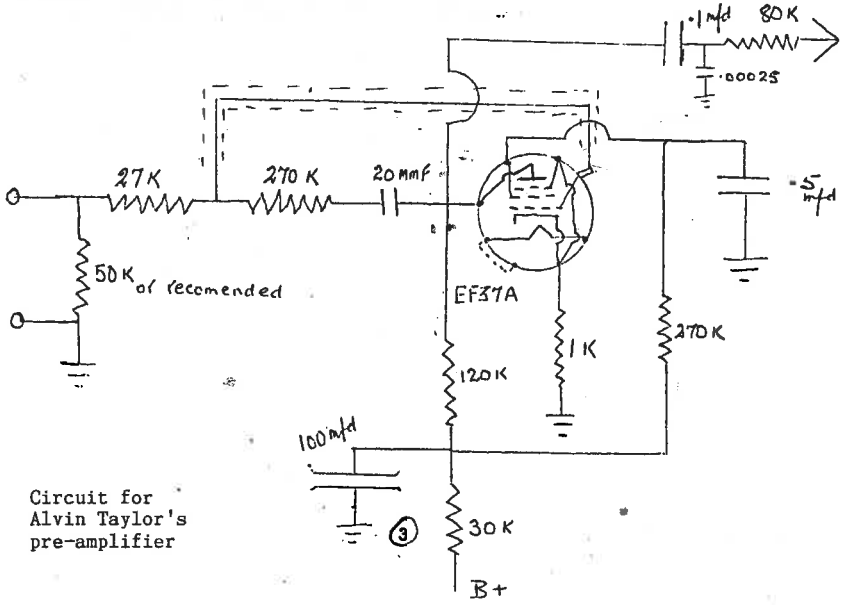
Now to return to the 78 story. By careful cross checking it was not hard to tell the difference between a preamplifier with negative feedback and one without, this is first of five essential points for 78 reproduction in my view
Second: It is essential to use a cartridge with both vertical and lateral compliance.
Third: The cartridge should be allowed to float within the arm, using sponge rubber or similar. The arm should be at best 16" long and have the facility for easy height and weight adjustment. The stylus should be at least 12" from the pivot point. To put it another way, the further you stand back from a 78 the better.
Fourth: The stylus should be preferably be a slightly larger unit cut than .0025, but rather .0028 either conical truncated or elliptical depending upon the make of cartridge used. I sometimes choose a .0011 or even larger for some early recordings. In my view the truncated stylus is the better choice.
Fifth: I still use my old faithful Garrard 301 turntable, heavy and absolutely reliable.

And now to the tried and trusted input circuit which is connected ahead of the existing preamplifier. A variable resistor connected in series with the .00025 can give a fine degree of top cut if desired, but this is optional. I have found the use of 100 mfd decoupler will ensure the unit remains stable.

I can supply details for anyone wishing to obtain cartridges and stylii.
Alvin.M.Taylor 14 Brockworth St. Wynnum West. Qld. 4178. Australia.

Finally however, I admit, only too sadly, that the same results would no doubt be attainable by anyone using solid state equipment and a graphic equaliser within the chain of things, but then this is 1992 and not 1948. Nevertheless it still remains absolutely essential to see that the cleanest possible signal is generated from the transducer before feeding into anything. Only those with an eye and ear to detail will acheive this however, how many of us are left!

Towards the end of the 50's, a few very fine examples of 78 recordings were issued by specialist firms for recording companies and radio stations, where theme and mood music were required. The quality of these rare discs was superb due in main to the new vinyl material soon to become everyday language at a reduced speed.



Circuit for
Alvin Taylor's
pre-amplifier

DIRE PENALTIES

As can be seen from this Warning Notice dated September 1st 1932, not only were owners of radio receivers in Canada liable to three months imprisonment for operating an unlicensed set, but even a repairman was not permitted to work on a set until the owner had produced the license.

This particular label was found pasted inside the lid of a 1937 Canadian Philco car radio in a position where could hardly fail to be seen by anyone working on the set. How long these particular regulations remained in force is not known, perhaps (as in N.Z.) until the flooding of the market with transistorised radios eventually made licensing impossible to implement.

WARNING—Any person installing or operating this radio receiving set without having first obtained a Private Radio Receiving Licence from the Minister of Marine of Canada, is liable to be prosecuted and sentenced to a penalty not exceeding fifty dollars and costs or three months imprisonment.

(c) No person shall sell any radio receiving set to any person for installation or operation until the purchaser has produced for inspection of the vendor his Private Radio Receiving Licence.

(d) No person shall service a radio receiving set until the owner thereof produces to such person his licence to operate such set.

(Extract from Radio Telegraph Act., Par. 31, effective September 1st, 1932)

WANTED

Cabinet and knobs for American Bosch 664. Cabinet for Pilot 403B. Cabinet for A.K. 812. Original knobs, push-button tone switch assy and push button pre-set tuning coil assy for Zenith 9S-300 series (9 valve chassis 1939). Shielded copper valve caps for the two RF stages of a Philips 472 Super Inductance.
Ross Paton 56 Glengarry Rd. Glen Eden. Ph.09-8188463.

Radio type 242 UHF, made in NZ for P & T by Radio 1936 Ltd in Auckland (in Post Office gray plywood box).
Dennis Seymour PO box 88061 Manurewa West. Ph. 5730800 wk. 2674442 hm.

Lissen radio (see p138 Golden Age). Philips 630A and 730A Super Inductance sets. Ian Sangster 75 Anawhata Rd. Piha RD1. New Lynn 1232. Ph.09-8149597.

Dial glass for Columbus 91.
J.Riddle East Takaka RD1 Nelson.

Atwater Kent P456X chassis preferably with knobs. Radiola 55E knobs.
Steve Beeston 39 Southgate Rd. Island Bay Wellington. Ph. 3842632 work.

Schematic for Hallicrafters S20R Sky Champion receiver c 1938-42. Any parts for HRO model M or complete receiver. 171 valve in S bulb or similar Philips power tube (C509 etc.) and Philips A609 for TRF.
John Reid 15 Dunbar Pl. Tokoroa. Ph.07-8863983 bus 8866734 home.
Magazines; Silicon Chip May, June, July, Sept 1988. June, July, Aug, Sept 1989 March, April 1990. Australian Radio World all 1936 & 37, Dec 1938, all 1939, 40, 41, 42, Jan March Dec 1943, Nov 1944, Feb 1945, April May Dec 1950. Radiotronics 1930 to 1937 inclusive, Jan Feb March 1938, 1941-46 inclusive, 1970 onward. E.Hakanson 17 Williamson Ave. Grey Lynn Auckland. Ph.3766059.

Circuit and 3 knobs for Courtenay 61. Three white knobs for Bell Colt. Dennis Seymour address in ad above.

"Rangatira" cathedral by Well-Mayde, 5S-127-5V 3 band Zenith mantel, Philco Baby Grand or Junior, Crosley, or A.K. 84. Grahame Lindsey address in available ad.

Cabinet to suit Majestic 20 (see p.164 More Golden Age). Chassis for 524 Ultimate console (see cover Golden Age). Chassis to suit bakelite flip front Pacemaker, Healing 447, Pacific 6WO, Radion Little Aristocrat, Courtenay 205 (1934), RCA 110 and 120, Stewart Warner R125X, Philips ham tin, Gulbransen Little Jewel. Any small Columbus radios and any Zenith radios, dont mind if they are unrestored. Mark Mimis c/o Post Office Thames NZ. Ph. 07-8682350.

Dial glasses for Columbus 84 and 91. Four monogrammed Courtenay knobs. R.F. signal generator with audio modulation covering all LF and HF bands.
J. Riddle East Takaka RD 1 Nelson.

Columbus and Courtenay 12 and 12A (rolled front), HMV Truetone and Midget, grey La Gloria Imp, Philettes, Mullardettes, brown Ultimate Cygnet and any small sets. Push buttons and knobs for Zenith 5R312A, dial scales for Astor Mickey and GF, Columbus and Courtenay 6 12 14 17 etc. Chassis Pacemaker 5MO (see p106 More Golden Age). Cabinets Montgomery Ward Airline Teledial 1936. Philips and Mullard extension speakers. Speaker grille for Columbus or Courtenay 17. Small Columbus knobs with ship, any colour.
Bob Cook Unit 3 475 Blockhouse Bay Rd. Auckland Ph. 6266241.

Cabinets for Ultimate 627 (see p.70 Golden Age), Majestic 463 (see p.107 Golden Age) and any round top or cathedral cabinets. One MS4B Catkin valve. Seven valve chassis for Crosley Gembox. Cash or swaps for the above items.
Murray Hall 802 Rolleston St. Thames. Ph. 07-8688804.

"Harringtons Radio" (1920's) radios and crystal sets or parts, catalogues, photos or information. Peter Fleury 48 Victoria Ave. Chatswood NSW 2067 Australia Ph 2-4171843.