

A Money Back Guarantee covers every Purchase

Great Clearance Sale to Continue until end of present month, goods going at cost and 10% on cost. Watch out for further list of bargains each week.

Kindly note that any of the prices listed hereunder do not include an allowance for freight or postal charges, but I will willingly pay freight or postage on purchases of 30/- upward.

The items are as follows:—

Resin Core Solder. Usually 1/- per tin. Now 8d.
British Indoor Aerials, extend, 12ft. 6in. Usually 3/6. Now 3/-
British 8-Wire Indoor Aerials. Usually 5/-. Now 4/3
5-Wire Battery Cables, complete with battery plugs. Usually 3/6. Now 1/9
6ft. Loud Speaker Extension Cords. Usually 1/6. Now 10d.
Isoradin Vernier Dials, worm gear drive, ratio 160 to 1. Usually 10/6. Now 6/6
Best British Glass Insulators. Usually 9d. each. Now 5d.
Egg Insulators. Usually 2/- doz. Now, doz., 1/4
Igranite 30 ohm. Rheostats. Usually 4/6. Now 2/3
Standard Low Frequency Transformers. Usually 16/6. Now 11/3
Lissen Differential Condensers. Usually 7/6. Now 5/-
Formo Variable Condensers, .0005, .00025. Usually 7/6. Now 5/9
One Only, Blue Spot, A.C. Dynamic Speaker, 5in. cone. Usually £5. Now £3/15/-
One Only, Brandes 10in. 6-volt, D.C. Dynamic Speaker. Usually £8/10/- Now £4/15/-
Only One, B.T.H. 6-volt, D.C. Dynamic Speaker. Usually £9/15/- Will quit at £4/13/6
180 Coils, each 10ft., rubber-covered Wiring Wire for Radio work. Usually 6d. per coil. Now 4d.
2,036, 600 Mega Heavy Insulated Lighting Cable, suitable for Aerial or Earth Wires. To be quit at, yd., 2d. Or Coil of 100yds., 10/-
Glazite Wiring Wire, in 10ft. Coils. Usually 9d. To be Cleared at 4d.
Igranite H.F. Chokes. Usually 7/6. Now 3/9
4 doz. S.T.C. Luna; 1½-volt, Dry Cells. Usually 2/6. Now 1/11
One Only, 3-Valve, Screen-Grid, Cossor Melody Maker in Metal Cabinet, with Valves. Usually £11. Now to quit at £5/18/6
With Batteries and Baby Grand Speaker (2-Volt Accumulator, 2 45-volt B Batteries). £10/11/-
9in. Porcelain Lead-in Tubes. Usually 1/- Now 5d.
One Only, Igranite Patent Gramophone Motor, repulsion, Induction Type (no brushes with turn-table). Usually £9. Now £4/12/6
One Only, Eagle Tone Control. Usually 12/6. Now 5/9
4 Only, Igranite 5in. Stand-off Insulators. Usually 3/6. Now 2/6
13 Only, Condor, 4-volt D.C. Valves, U.X. Base take .1 amps. Usually 13/6. Now 5/6
One Only, Philips 2-valve Electric Amplifier, having Pentode Output Valve. Usually £10/15/- Now £5/18/6
One Only, Tungar Trickle Charger, rate .5 amps, in good working order. Usually £4/15/- Now £2/5/-
2 Only, Hegra Inductor Dynamic Speakers, suitable for any set having 3 ranges of impedance. Were £4/10/- Will quit at £17/10/6
3 Only, Tefag Cone Speakers. Were £3/10/- Will quit for 19/11
One Only, Farrand Inductor Dynamic Speaker, housed in a Beautiful Table Cabinet, Duco Finish. Usually £7. Now £4/19/6

BOB HORROBIN
Flashlight Corner 2 Courtenay Place
WELLINGTON

Quick Repairs Phone 52-357

Questions and Answers

E. A. (Woburn): I am building an output transformer to match a 6BR speaker to a 247 valve. How many turns would I put on the primary of the output transformer with a core of 1 x 1?
A.: You will require 2500 turns, but if you can get more on, so much the better.

2. If I wish at some time to use a different valve to the 247, would this necessitate altering the number of turns on the primary?
A.: No. The idea with the primary is to get the impedance as high as possible, and make all adjustments to the secondary.

3. I believe there will be marketed shortly an indirectly heated version of the 247. What is the optimum load impedance of this valve?—A.: 7000 ohms.

DX180 (Waiuku): The harmonics appear to be missing from the music with my speaker. The cabinet vibrates continuously, no matter what volume is handled. Would a lining of non-resonant material improve matters?
A.: The cabinet work of your set is probably not heavy enough. Vibration should not take place, as this will spoil the tone. A lining of non-resonant material would probably improve matters if the speaker were mounted against this.

2. I find that the coupling resistances in the grid of the pentode and earth is 5 megohms. What difference would one of, say, a ½ to 1 megohm make?
A.: Five megohms is too high for this position. It should be ½-1 megohm.

3. In what countries are international reply paid coupons not acceptable?
A.: We do not know. Inquire at the Post Office.

F.H.G. (Waitotara Valley): My set was some time ago converted into a four valve set in order to save replacing a transformer. However, I now wish to revert to the original. How shall I go about it?
A.: If you do not know anything about radio construction you would more likely get into difficulties. The connections from the transformer are apparently now taken to the detector stage, cutting out the first audio. These should go P to the plate of the audio valve, B+ to the maximum B+ voltage available. The plate of the detector valve will now connect with P of the transformer nearest it, and B+ will go off to a suitable detector tapping, i.e., about 25-40 volts.

2. There is a 3½-1 transformer in the set at present. Could I use a 3-1 with it?
A.: Yes, this is quite suitable.

3. If I get a new set of valves, four 609's, one 605, will the set want re-neutralising?
A.: In all probability yes. As we do not have a circuit of your set we cannot tell you how to go about the job. If you use 221's instead of the ones already in use and a 605 in the last stage you will probably not have to re-neutralise the set.

PENTODE (Papakura): About 125 turns of 30 gauge enamelled wire.
2. I am using the superhet. shortwave converter. Could I take the 90 volts for it from the 90 volts tapping on the voltage divider of my broadcast set?—Yes.

SPARKS (Dunedin): From whom can I obtain the Admiralty hand-book of wireless telegraphy?
A.: The Te Aro Book Depot, Wellington.

3. Would an engineering course help me to obtain the wireless operator's ticket?
A.: You would be better to obtain a special course catering for the wireless operator. There are several available.

MU 1 (Mamaku): I am using 221's and B605 in my receiver. Would a special detector like A415 improve reception?
A.: It is very doubtful if the improvement would be noticeable.

2. How would the 1932 "Outspan" compare with my five valve for performance and economy?
A.: It would be superior.

3. How would this set compare with the "Super Six" for distance on the broadcast band?
A.: It would, if used on an aerial, against the "Super Six" on a loop, be much superior, otherwise the "Super Six" would win.

CURIEUX (Napier): I can hear quite a number of shortwave amateurs on my crystal set. Would I receive them better by tuning to their correct wavelength?
A.: They are not harmonics; a harmonic can only come in on a shorter wavelength. They are either spurious frequencies or you happen to be in the shock area of those transmitters.

2. What are the coil specifications for the 80 metres bands using a .0005 mfd. tuning condenser?
A.: On a 2in. former you will require 15 turns.

3. Is a "Pix" advantageous to dicing on a crystal set?—No.

D.F. (Glenside): Our set has one fault—Wellington comes in half way over the dial. Would you advise us to sell the set?
A.: A wavetrapp would probably be quite effective and would keep out 2XA. We would not advise you to sell the set, as if its value lies only in a local station receiver you would not get more than a few pounds for it. The set could be made more selective, and if the wavetrapp is not efficient we would advise you to get in touch with the agent, whose engineers would probably be able to do something for you.

W.G.H. (Waikanae): The volume control of my set will not work well.
A.: It is rather difficult for us to pick the fault with your volume control, as we cannot see how it is connected in the circuit. It sounds as though it is a control on the voltage of one of the valves, and in that case the trouble should disappear if the resistance were replaced.

2. I have charged the battery all day and all night, and then turned the set on at 8 p.m., and by 9 or 9.30 it will gradually go down until nothing can be heard.

A.: Your battery has either not had a full charge—it takes more than 24 hours to charge a battery fully—or it has come to the end of its useful life, and consequently will not hold the charge. Do you have a hydrometer? If you have, test it on the completion of the charge, and if it runs down within a few hours, the battery is useless.

AERIAL (Dunedin): I have a 2-valve all-electric set incorporating a dry rectifier. The tone is not the best, there being a rattle in the music and speech.
A.: Probably you need more smoothing in the "R" circuit. Test your filter condensers and filter choke.

C.W.T. (Wellington): I am contemplating building an a.c. local station receiver, that will be reasonably selective, and would like a circuit employing an r.f. and detector valve, with pentode output.

A.: The ideal circuit appeared in the last month's issue of the "Radio Times." It is called "The Link Three," and comprises a band-pass filter, multi-mu, r.f., screen-grid power detector and pentode. No; the set you enclose would not be satisfactory. You would need a wavetrapp.

PUZZLED (L. Hutt): I am using "Round the World Three" with a power unit and battery charger, as described in the "Radio Record." The set has given good results lately, when a loud rushing noise started and tone and volume deteriorated. The switch controlling the primary side of the transformer, or a switch controlling a light is switched on and off, or vice versa, when the trouble comes on, it immediately ceases, and operates normally again.

A.: The trouble is so unusual that it would be almost impossible to tell you what is wrong with your set without examining both the power unit and the set itself. It seems that there is something wrong with the power unit, probably a broken-down condenser or a defective resistance. Maybe the rectifier valve has petered out.

DX450C: How could I add a resistance coupled 227 to my present circuit to be transformer coupled to a 247?
A.: Such a hook-up would not be satisfactory, as resistance coupling should be employed in the 47 valve. To do this you would use two orthodox resistance coupled stages.

2. Will the 227 alter the tone of the pentode?—No.

3. Will a 3½-1 transformer be suitable for the purpose mentioned above?
A.: We do not advise you to use a transformer.

4. Have I sufficient voltage available?
A.: Probably.

5. What difference would a 235 make in place of a 224 r.f. valve?
A.: Unless your set is specially designed for the 225 it will not make any difference.

6. Could you give me the approximate specifications for r.f. and detector coils for the following bands, to be wound on 2in. formers and tuned by a .00016 condenser?
A.: 200—400 metres. 45 100 35
400—600 metres. 85 180 75
15—25 metres. 3 3 2½
24—40 metres. 5 6 4
37—65 metres. 12 13 5
64—115 metres. 22 22 8

Primary, secondary, tickler, in that order. Reaction condenser .00015. Secondaries wire 24 enamelled, primary and tickler 26 enamelled. We are posting you the circuit you require.

WREN (Auckland): I desire to make a crystal detector using a carborundum permanent detector, and I understand this needs a stabiliser. What are the connections?
A.: They are shown in the accompanying diagram.

2. The value of the potentiometer and the voltage of the battery?
A.: The potentiometer is usually 400 ohms and the battery 1½ volts. A condenser is not needed.

Information Coupon

(To be used with all requests for information.)

Name of set

Model

Name

Address

.....

.....

Nom de plume

To be kept in subsequent inquiries

Please Note:—

- (1) Be specific and brief, tabulating, if possible.
- (2) Write legibly, and on one side of the paper.
- (3) We do not design circuits.
- (4) Limit three questions, unless 1/- is enclosed.
- (5) Postal queries limit three questions. Enclose stamped envelope and 1/- fee.