



Questions and Answers



"MAC." (Oamaru): I have a five-valve battery set. What is the best combination of valves?

A.: Four 221A's and one 112A type of power valve in the last stage. The power valve can be any make, though you will find the original Radiotrons are more suited to your radio and detector stages.

2. Where is the nearest agent for my set?

A.: Harringtons, Ltd., Willis Street, Wellington, are the nearest we know of.

3. Is a set adjusted properly when it vibrates and the music is blurred?

A.: This may be due to your speaker not being able to carry the load, or due to the fact that you are not using a power valve in the last stage. If one is used it must be suitably biased.

4. Where can I obtain a book on battery set?

A.: Such is difficult to obtain in these days of all-electrics, though you will find

the 1929 and 1930 "Guides" contain a good deal about batteries.

J.C. (Dunedin): Your inquiries refer to a set published by "N.Z. Radio," and we advise you to write to them for further particulars. A shilling is charged for advice.

H.P. (Wellington): Could I add a screen-grid valve in place of the detector valve in my three-valve set?

A.: No, the result would be very doubtful.

2. Can a trickle charger be used in place of a 4-volt accumulator?

A.: No, there is a certain amount of ripple still left in the current after it has been passed through the charger, and unless this is smoothed out you will not get satisfaction if it is used as an eliminator. A high capacity electrolytic condenser must be connected across the terminals and a choke used in series with one of the leads. A suitable choke was described in the "Record" a short time back.

V.H.W. (Auckland): Would a two-valve short-wave set be preferable to a short-wave adaptor used in connection with a 5-valve set?

A.: An adaptor is quite as good as a two-valve set, in fact it will probably give you better results, as the audio system is better.

2. I have not had good results on my shortwave set, although the locality is good.

A.: Try increasing the detector voltage and varying the value of the grid leak. Also another valve, especially if of the 415 type, may give you better results.

3. When the dials are at certain readings I get a roar which I think is not due to oscillation.

A.: This possibly may be due to outside interference. You could check this up by removing your aerial. If it is caused within the set your best plan is to communicate with the dealer who sold you the receiver, as it should not do this.

ART (Mount Eden): What valves should I use in my receiver?

A.: Use four 221's and one 112A type of power valve in the last stage. This must be properly biased and if the set is not made for grid bias, you could either alter it or have it altered. The power valve is used in the last stage with bias appropriate to the plate voltage.

2. I have three dials on my set. Which is the tuner?

A.: We cannot say, as we do not know the particular set. Probably the right-hand dial is the regeneration and the other two the tuners.

3. Would P825A be better in the last stage?

A.: Yes, it is an excellent power valve and could quite well be used in the last stage providing you arrange the wiring so that the full six volts be delivered to it.

"BUNG" (Waikato): Why cannot I receive shortwave on my commercial all-wave set?

A.: Try increasing the detector voltage and varying the grid leak. Being

a commercial set we cannot give you much advice concerning it.

2. Is 20 stations satisfactory for a three-valve set?—Yes.

3. Should the set whistle when I place my hand on the metal cabinet?

A.: No; but due to the design some sets do this. There is usually nothing really wrong.

4. My present condensers are .00035 and .0005. Is this satisfactory?

A.: They are large capacities if you want to work shortwave. You will find that the stations will be very bunched and you must look for them carefully.

5. I cannot seem to be able to turn down my reaction enough to tune in shortwaves.

A.: We cannot help you much in this direction, other than advising an increase in plate voltage, if you do not know your set sufficiently well. If you wrote to the engineer of Abel, Smeeton's Ltd. you may be able to gain further advice.

6. I am using B406. Could I use a power valve in the last stage?

A.: B406 is a power valve and you could not better the combination.

7. Why should stations on the lower numbers of my dial come in more strongly than those on the upper?

A.: This is not infrequent. The upper frequencies are usually amplified greater than the lower.

8. What is the most suitable speaker to use? At present I am using a horn.

A.: You could use a small cone speaker, and this should give you better tone with equal sensitivity.

9. I would like to get into touch with someone who is using a Courier set.

A.: If they write to you, care of us, their letter will be forwarded.

C.H.W. (Invercargill).—The diagram of your set is not a good one, and we would advise you to wait until the 5-valve screen grid Browning Drake is published, which will be soon after the Loftin White series is finished.

C.V.N.B. (Feilding).—Where could I get a circuit of a 5-valve Gilfillan?

A.: Harringtons, Ltd., Willis street, Wellington.

"SHORTY" (Wellington).—Is the following shortwave detector circuit correct?

A.: Yes, it can be used connected to the gramophone attachment of your set.

"KELVIN" (Johnsonville).—What is your opinion of my factory set, and could the valve combination be improved upon?

A.: Apart from laboratory reports we do not comment on factory-built apparatus. We do not know what valves you are using, and you certainly cannot vary the combination. First grade valves are regularly advertised in the "R.R."

"SAY SO" (North Auckland).—With a .00035 tuning condenser and a 2½in former, how many turns of 24 d.s.c. wire would be required to cover the broadcast band, and where should the aerial be connected?

A.: 84 turns unspaced tapped at twentieth turn.

2. Using 30 d.s.c. for aerial and regenerator primary, how many turns will be required to suit a 2½in. former?

A.: Ticker about 22 turns on a 2in. former, primary will vary according to the valves used. The average valve requires about 15 turns. A screen-grid valve requires 25.

3. Where should the fixed condensers be placed in the circuit, and should they be mica or paper?

A.: They are required from the set side of the r.f. choke to earth. In your diagram they are shown in the correct position and should be 1mfd. mica condensers.

4. Which would give the better results for resistance reaction control—1000 or

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"Radio Trouble Finder," 1/10.

Above published by "Radio News" Co.

"Radio Amateur Call Book," Sept, 1930, 5/3.

"Projection Engineering"—a monthly, 21/- per annum.

"Radio Manual," by Sterling and Kruse, latest edition, 26/-.

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(contains list of the World's broadcasting stations).

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5. Speed type UX280 Rectifier tubes. **10/- Each**

6. Courier Transformers. We bought these from Wiseman's (in liquidation). They were listed at 22/6 each and were well worth it. Ratios 3½ to 1 and 5 to 1. The price we paid enables us to sell at **12/6 Each**

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