

Questions and Answers



POWERLEAK (Trentham): The district is notorious for power leakages. Could I use a frame aerial on my four-valve a.c. set?

A.: No, you must have a specially-designed set to use a frame. You could use an indoor antenna but this would greatly weaken the signals. Try a counterpoise earth, a different earth, a shorter aerial, altering the direction of the aerial or an aerial slung between the ceiling and the roof.

W.G.S. (Wanganui): I wish to make an all-wave set from the Bestways' description. Would this set be suitable for New Zealand conditions? What grid bias would be required?

A.: We cannot tell you anything about the set until we have seen the circuit. The amount of grid bias will vary according to the valve used.

2. What would be the size of the "B" batteries?

A.: About 90 volts on the second valve and 45 on the detector.

R.H.B. (Auckland): How can I take grid bias from my eliminator?

A.: Separate the "A" battery from the "B" and join "C" of the valve to be provided with bias to "B". Now take a 3000 ohms variable resistance, attaching one side to "B" and "C", and the other to "A" (if the usual connection is "A", "B", "C"; otherwise "A plus"). Slight 1 mfd. condenser across the resistance.

2. Could an "A" battery charger supplying 1 amp be used with a set drawing 4 amps?—Yes.

3. What is the aerial length equivalent to a Ducon?

A.: One cannot say definitely, but it

is slightly better than a good indoor aerial.

L.S.P. (Gisborne): Is the enclosed circuit suitable for a phone transmitter and does it comply with the regulations?

A.: If you are interested in amateur transmitting you should write Mr. S. Perkins, Puru Crescent, Lyall Bay, Wellington, and he will tell you all you want to know about getting started in the amateur game.

CONDENSER (Temuka): When testing my condensers I get a series of clicks in the phones, but when these are substituted by a sensitive meter there is no reading. Are the condensers all right?

A.: A more satisfactory test should be made. Use, say, 90 volts and see if there is any reading. The .0001 condenser is probably in good condition, but you cannot test the larger one until you apply a higher voltage.

2. Nearby power lines quite spoil my reception. Do you think short-wave reception would be better?

A.: Yes, power line interference is worse on the broadcast band than on the short-wave band.

MUG (New Plymouth): Music and speech are blurred when my set is called upon to handle any volume. It has been in use about fourteen months, and the valves have not been renewed. The detector is a 227, there are two 201's and UX112.

A.: We cannot quite understand the valve combination. As it is a three-valve set one is evidently a rectifier, and from what you state it appears that a 201A

is used for this purpose. If that is the case another one should be tried in the rectifier socket, as it is probably exhausted. Is the bias on the last valve appropriate? If your valves have been in use 14 months they will want renewing. If the 112 is used for a rectifier it may have to be renewed.

BUNG (Waikato): Would an aerial with a span of 100 feet and a 40 feet lead-in be improved if the lead were enclosed in a small water pipe?

A.: No; the lead-in should be of heavy insulated wire. If the water pipe is brought near the lead-in it is, in effect, reducing the effective height of the aerial without any compensating gain.

2. Could a long aerial be used with a superheterodyne?

A.: No; a super het. cannot be used with any type of outdoor aerial.

3. Can several filaments be run from the same winding of the transformer?

A.: Yes, providing the windings will carry a current to be supplied and that coupling between the stages will not be the result of joining several filaments together.

4. Are the direct coupled satisfactory if the r.f. and detector valves are on the same filament?—Yes.

Note.—Thank you for your book of diagrams. We shall return it to you shortly.

TRICKLE CHARGER (Wellington): Will you supply details of an output filter choke?

A.: In our next issue we are reprinting same from the "Listeners' Guide."

2. Must the construction of a filter choke vary when used with different output valves?—No.

PUSHPULL (Kelburn): What is the capacity of a variable condenser with two moving and three fixed vanes?

A.: If it is a standard sized condenser it will be a .0001.

2. How might the area of the plates be ascertained?

A.: Make a sketch of them the exact size and divide up into small squares of a known area. Count the number of squares and multiply by the area of each.

3. Where can I obtain a copy of the "Listeners' Guide"? Why don't you print a few more, they would sell like ice-creams in "trotter place"?

A.: We do not know where you can obtain a "Guide," and it would not be worth while reprinting, as the metal has long since been destroyed, and the 1931 "Guide" will, however, be out very much earlier than last year, and we can assure everyone that it will be even better than the 1930.

G.L. (Inglewood): I have constructed a 2 r.f. Browning-Drake and found it remarkably successful. I am interested in your statement that the screen-grid model will be coming out. When will this be?

A.: We cannot state any definite time, but it will not be very long.

N.B.B. (Wellington): Could the adaptor, a diagram of which is enclosed, be used with a six valve a.c. set?—No.

2. How does the detector function when used in the adaptor?

A.: It cannot function, for one is a.c. and the other a.c.

3. Must the list of parts be adhered to?

A.: No, so long as you use good parts that is all that matters.

4. How could this set be used with phones?

A.: You could use it as a short-wave set by providing separate batteries.

SHORT WAVE (Johnsonville): Can I use the short-wave set, a diagram of which I enclose?

A.: Join the primary and the secondary together for stable operation. Use a 10 meg. grid leak and a .0001 grid condenser, increase the detector voltage to 90 volts, or change the detector valve. A good detector on broadcast is not always successful on short-wave.

2. How can I test the choke and fixed condensers?

A.: Either with the phones and cell or voltmeter and cell, described a week or two ago.

ULTRA (Woburn): I enclose a diagram of a set. Would it be superior to a circuit using a periodically-coupled r.f. amplifier?

A.: Yes, in that harmonic can readily be eliminated.

2. Do you approve of the method of coupling between detector and r.f.?

A.: The gain is not as great as transformer coupling, but ease in handling will compensate.

3. Have I used a surfeit of by-passing?

A.: No, it is an excellent practice, and use condensers wherever possible.

4. What voltages must be applied (1) to the plate of the s.g. detector valve and (2) to the screening grid of the same valve?

A.: 135 to the plate, 67½ to 90 to the screening grid.

5. What should be the value of a fixed grid condenser?—0.001.

6. I propose winding my own coils on 1½ in. diameter tubing to be fitted

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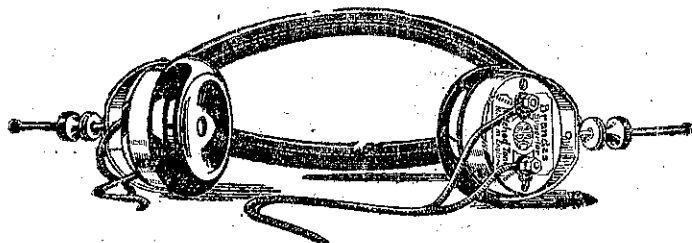
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