



Questions and Answers



C.F. (Ohura): I can receive 2YA on 70 on my dial when the normal wave comes in at 17. 7ZL comes in at 30.

A.: This is a rather puzzling phenomenon and is probably due to your set oscillating. You are really receiving a harmonic of your own receiver, which is being modulated by 2YA's frequency.

2. Could you give me some of the stations on the very long waves?

A.: Leningrad, Russia, 1000 m., 20 k.w.; Oslo, Norway, 1071 m., 75 k.w.; Moscow, Russia, 1304 m., 165 k.w.; Daventry, 1554 m., 35 k.w.; Zeeson, Germany, 1635 m., 35 k.w.; Lahti, Finland, 1796 m., 54 k.w.

THANKFUL (Te Aroha): What kind of circuit is my set?

A.: We have not encountered such a one before, but presume that it is of the neutrodyne type and we do not know who the New Zealand agents are.

2. Could I add a pentode valve?

A.: Yes. You merely place the valve in the last socket and connect the auxiliary terminal to the highest "B" voltage obtainable.

R.D.H. (S. Dunedin): I can only get a .00015 differential condenser. What change will I have to make in the coils?

A.: Put from 15 to 20 extra reaction turns on. There will be no need to make any other alteration in the set.

2. What is the ratio of the transformer?—3:1 or 5:1.

WAGG (Te Kinga): I have made the Daniells Charger and it is showing 10 volts for 10 cells. How can I increase the voltage?

A.: Provided the charger works satisfactorily we would not worry about the voltage being lower than it should be. This may be due to the load being placed by it. Furthermore, it may be due to defective cells, which, however, we consider unlikely. Test each cell separately to eliminate any duds. You can increase the voltage by using more cells.

K.H.D. (Mount Eden): Can I procure valves other than those used in my three-valve set that will do the job as efficiently as those now in use?

A.: We very much doubt if you will be able to do this. These valves are not generally used here, and the ordinary valve will not do. Try Whitcombe and Tombs, Wellington.

2. Can I replace any one without having to renew them all?—Yes.

TRANSMITTER (Kerepehi): I wish to build a really powerful broadcast receiver using a.c. valves. Can I build the "Outspan"?

A.: An excellent one is described in the "Radio Guide." It is called the A.C. Radiogram Five, but if you wanted one still more powerful you could add another stage of s.g. radio, constructing it exactly as described for an existing s.g. stage.

S.O. (Whangarei): I believe the correct number of turns on a primary coil to match my s.g. valve should be 77. Is this correct?

A.: No; the effectiveness of a large number of primary turns falls off rapidly after about 30. For your valve you should be using about 40 turns.

Next Week's Construction Feature

"A WAVE TRAP FOR LONG AND SHORT WAVES"

Future Articles:

"THE RANGER TWO" "THE KESTREL THREE"

These will be good; watch for them.

2. Can a pushpull output impedance be used satisfactorily with an ordinary cone speaker?—Yes.

H.C.W. (Khandallah): Can you recommend a good super. het. s.w. circuit of the battery type?

A.: We do not know of any commercial receivers of this description. You could, however, have one of the local firms make one for you.

QUILP (Te Aroha): What causes the music to be muffled and rattly? I use a battery set with a "B" eliminator and a horn speaker.

A.: This sounds like an inadequacy of grid bias or it may be caused by your not using an appropriate power valve. Furthermore, your speaker, which is out of date, may be at fault.

L.C.A. (Aramoho): Should I be able to receive American and Japanese stations on my set?

A.: The Japs are not coming well at the present time and the American stations are difficult to receive except in certain localities. If you can bring the Australians in at good strength your set is doing all that it should.

2. Is the valve combination satisfactory?

A.: Yes, but when renewing your valves get them all of the same make and be sure they are first grade.

3. How is the earth system?
A.: It appears to be quite satisfactory. It is better if the distribution point is nearer the centre of the earth pipes for then the leads to each can be equalised.

WIRE (Dunedin): I wish to construct a power pack for the super. het. s.w. adaptor using a transformed core of 1 1/2 in. x 1 1/2 in. What number of turns must I wind on?

A.: Primary 1125 of 34 gauge, secondary 1080 of the same gauge wire. Filament 9 turns of 18 gauge.

P. (Carterton): Can I, using an insulated wire, shift my set to another room and plug it into a separate electric light socket, but using the same aerial and earth?

A.: Yes, efficiency will be only slightly decreased because of the long aerial and earth lead, but you will get quite satisfactory results.

Note.—The set to which you refer is an excellent one and you may be assured of getting good results by using it.

INQUISITIVE (Motueka): A report on the set to which you refer appeared about twelve months ago. We will probably have more to say about it in the near future. The valve to which you refer has not yet been to the laboratory so we cannot tell you anything about their life, which, from what you state, appears to be less than normal.

2. My "B" batteries are only a fortnight old and the "A" battery is well charged, yet if the set is left for about 24 hours it will go splendid for about 10 minutes and then become quite dead. If turned on within another half an hour or so it will be quite normal.

A.: This seems to be a broken down condenser, or resin joint. Tug all your joints and test all condensers.

G.H.J. (Mangaweta): Will the circuit which I enclose be satisfactory for broadcast reception if I alter the coils and condensers?

A.: Yes, but if you want a powerful set, why not build the Outspan Five, which we consider to be better than the one the circuit of which you enclose.

2. Will I be able to eliminate the potentiometer return or the grid?

A.: You may be able to. Potentiometer grid returns ensure smooth regeneration.

3. Will one rheostat be sufficient to break down the "A" supply from six volts to four?

A.: Yes, if you use 30 ohms.

4. Do you think "A—" instead of "A+" should be earthed?

A.: No, your set is designed for an "A+" return.

SHUNTER (Mercer): I do not understand what coil goes into the valve socket on the right of the s.g. valve. On looking through back numbers I find

CORRESPONDENTS must attach this coupon to all queries sent to the Technical Editor (Box 1032, Wellington. Limit three questions, unless letter is accompanied by 1/- fee.

Name of set

Number of valves

Name

Address

.....

.....

Nom de plume

To be kept in subsequent inquiries.

Date

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, but accept suggestions for feature articles.

Solving trouble, as different from advice, is difficult by correspondence and while letters are given every consideration, answers are not necessarily correct—they are only our opinion based on the matter supplied, which may be quite inadequate. Intricate and involved specifications cannot be supplied without a specialist's fee.

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