

Questions and Answers



I.B. (Christchurch) asks where he might obtain information concerning the Hammarlund-Roberts screen-grid receiver.

A.: Try John's, Ltd., Auckland.

2. Will A630, A609, and two B605's be suitable for the above receiver?

A.: A630 would not be much use for a screen-grid receiver. A609 can be used in almost any position except as a power valve, with one of the 605's in the last stage.

T. McR. (Wanganui) has an 8-valve electric set which hums when the power is turned on. How could he reduce this?

A.: You would need to consult the agent who sold you the set as hum reduction is not a simple matter for an amateur.

G.C.C. (Christchurch) asks us for some advice regarding commercial receivers—he cannot decide which of three he would like.

A.: We are afraid that if you have heard the three we cannot decide for you. They are differently priced, and as far as we know are graded according to the price. We tested No. 3, and the report appeared in the "Radio Record" some time back.

CONSTANT (Wellington) has constructed the "Combination" receiver described in the "Radio Rec. 1," and now wishes to add an extra valve, so as to have the following combination:—Crystal receiver, crystal and one-valve amplifier, valve and an amplifier.

A.: Add a stage as was shown in a diagram last week, but you will have to use a special jack before this stage to operate as a crystal and one-valve amplifier. Such a jack can be easily obtained by asking for one to plug in to a first stage audio.

SPARKS (Dunedin) asks one where might I obtain constructional details of a set suitable for receiving Australian and New Zealand stations, such set to use batteries only.

A.: The four-valve Browning Drake described in the 1929 "Radio Listeners' Guide" would suit your purpose admirably.

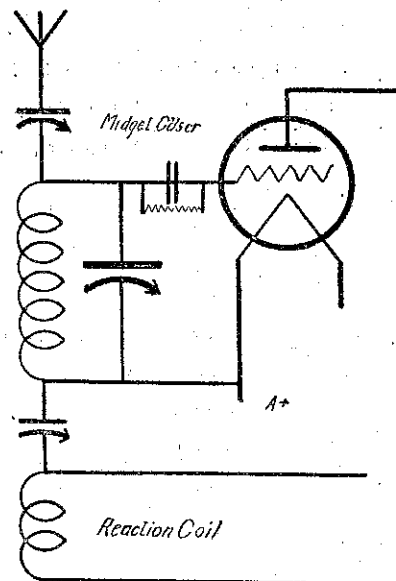
2. Is a kit set available for such.

A.: Not to our knowledge, though the parts are readily available.

SHORT-WAVE (Gisborne) asks the following questions concerning a single valve receiver described in a recent publication.

1. Can this set be used as a short-wave receiver?

A.: Yes, if you use special coils. We would advise you, however, to use the "Round the World" circuit described in



the "Radio Record" this year, but leaving out the second valve that is in place of the first audio transformer; use your headphones. You would find it better to use a .00015 condenser, and use the numbers in last week's "Radio Record." You would then not have a separate primary, but would come on into the secondary as shown in the accompanying diagram. Other than this there is little difference in the sets.

2. Will .003 condenser do instead of a 00035 and a 00025?

A.: Yes, but you will need to alter the number of turns on the coils. We advise you to construct at least the detector stages of "Round the World Two."

W.G.S. (Napier) asks if he might attach a short-wave adaptor to his a.c. set to save expense of a separate receiver.

A.: Yes; you could quite easily make an adaptor such as was described in the

1930 "Guide," but if you prefer not to do your own construction you could either have one made or could purchase a commercial one.

W.F.N. (Waimate).—Send along a diagram of two positions for aerial. In one he can get a 100ft., but would need to give the lead-in a twist. On the other way the aerial would be only 45ft. in length, and the aerial would come in straight. Which would be the better?

A.: Providing you can get a reasonable light to No. 1 it would be the better theoretically, although in practice there would be little perceptible difference in the signal strength.

ANGUS (Wellington) has recently wound broadcast coils for his short-wave set. He is having trouble with the reaction; everything works quite well for a part of the range, but on the lower frequencies the set will not oscillate, having more turns induces violent oscillation on the higher frequencies.

A.: The trouble lies with the small value of condenser used to control regeneration. Now that you have broadcast coils you will need a bigger value condenser, say, a 00025.

MARCONI (Blenheim) wishes to know a few points about the "Round the World Two."

1. When I first hooked up this set I put 22½ volts on the plate of the detector. It would not oscillate; then I tried 45 volts and it went all right. Why does it not oscillate on 22½ volts?

A.: It depends on the valve; not every one will oscillate on 22½ volts.

2. I intend to shift the tuning condenser back from the panel on account of hand capacity. May the extension shaft be of bakelite, ebonite or other non-contacting material, or would metal do?

A.: By using metal you would be defeating your own ends. Bakelite or some non-conducting material would be necessary.

3. My set has the fringe howl badly. How can I stop it?

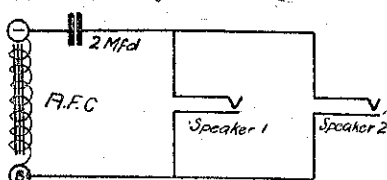
A.: That question was fairly comprehensively treated in an article in last week's issue.

4. How do I connect a choke output to my set? Would the secondary of an audio transformer do for a choke?

A.: A diagram shows the connections, providing you are using only two valves the secondary of a transformer would probably be all right, in any case it is worth trying.

5. Is the plate-voltage control method of reaction as efficient as condenser control?

A.: Yes, but you must be careful to



select the resistance. The following are suitable: Centralab, Frost or Electrad, probably 50,000 ohms would do.

LISTENER-IN (Alfredton) wants us to draw a comparison between a 6-volt A accumulator and a Columbia "Hotshot" battery.

A.: The Columbia is merely four of the standard number 6 cells wired ready for use.

2. How would they do to run a six-valve set?

A.: They would be inadequate.

3. How do you compare this battery with a 45-volt B battery?

A.: They are different in size and purpose, though the 6-volt battery consists of four cells wired in series and a 45-volt B battery comprises 30 much smaller cells wired in series.

"H.W.Y." (Herekino) asks the following relative to short wave:—

1. Concerning the four-valve screen-grid received in 1930 Guide, the theoretical diagram shows the grid leak lead to A positive and the under baseboard wiring to A negative.

A.: It rests with your valve which one you use; try the positive.

2. Wiring planned shows the R.F. coil to earth, the under baseboard shows filament and plate terminals to earth.

A.: Filament negative is earth.

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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.