

QUESTIONS AND ANSWERS

"TENDERFOOT" (Wanganui): My present aerial, which is 30ft. high and 70ft. long, does not bring in any of the YA stations till 7 o'clock, with the exception of 2YA, which comes in at good volume all day. Would it improve my reception of distant stations if I raised one end of the aerial to approximately 100ft., the other end to 50ft., and use an aerial of approximate overall length of 180ft.?

A.: Daytime reception of distant YA stations is always rather uncertain. Your proposed new aerial would improve dx reception, but there is no need to make it so high or so long. An average height of 40ft. and a length of from 100 to 120 feet would be ample. Alternatively, you could erect a perpendicular aerial 100 feet long and well spaced from the mast supporting it. This would be ideal.

"RADIO BUILDER" (Dunedin): Where could I find constructional details of a one-valve short-wave a.c. set, or failing this a two or three-valver?

A.: The November "Radio Times" contains constructional details of a three-valve a.c. short-wave set, the "Viking," which should suit your needs. This set may be operated in conjunction with any a.c. broadcast set, or can derive its power from a separate power pack.

2. What range could I expect from the set you recommend?

A.: This set will bring in principal short-wave stations of the world at good volume.

3. What range would the set cover?

A.: From about 20 to 100 metres.

I.W.D. (Ormondville): I am contemplating increasing the height of my aerial poles, which will give me a lead-in of 75 feet. (At present it is 53 feet.) However, this only allows me a horizontal span of 25 feet. Would this be sufficient?

A.: Yes. Such an aerial would be quite suitable for your type of set.

"BEGINNER" (Lower Hut): An a.c. superheterodyne kit-set is described in the November "Radio Times," while a similar set will be described in the December issue.

Either one of these kits which covers the face of the fixed vanes (top and bottom) of the fourth section of the gang, which is smaller than the others?

F.M.P. (Nelson): The task of connecting a gramophone pick-up to your set is not straightforward, and we do not advise you to tackle it, but to get in touch with your local agent.

"KIWI" (Dunedin): I have a four-valve t.r.f. set employing a 58, 24, 47 and 80, and wish to add another stage. This I propose doing by making the 24 into an r.f. stage and adding a detector of the diode type. Which valve would you advise?

L.R.C.'s Must Be Enclosed

K6CIB [L. A. Walworth (USNR) 2737 Ferdinand St., Honolulu], operating on the 75 metre amateur 'phone band, advises that owing to the number of reports being received, he will QSL all shortwave listeners only if an International Reply Coupon is enclosed. K6CIB uses a power of 45 watts, with 100 per cent. modulation.—N.Z.16W (Wellington).

A.: We strongly advise you against making the alteration you suggest. Your best plan, if you wish your set to have a little more "lift," is to add another 58 r.f. stage.

2. Could A.V.C. be fitted without too much trouble?

A.: A.V.C. would be useless with such a small receiver, as there is no reserve of power.

"DYNAMITE" (Auckland): We cannot tell you how much power your set is consuming as you have not clearly stated how your 6-volt accumulator is connected, and the voltage of your d.c. mains. To comply with the regulations a fuse must be fitted in each lead.

2. I presume my set must not be earthed unless through a high test condenser, except when the primary is loose coupled. Is this correct?

A.: Under no circumstances should a set operated from the d.c. mains be earthed except through a high test fixed condenser. It is always advisable, too, to fit another fixed condenser of high test, of value .001 mfd. or larger, in series with the aerial, though this point is not insisted on in the regulations.

"MIRAO" (Greymouth): When my set is switched on a noise like static is heard. Then if a station is turned in at full volume there will be a gurgling noise and the volume will suddenly drop to half. To restore full volume it is necessary to switch the power off and then on. What is wrong?

A.: Quite probably one of the valves is defective. However, your trouble may be due to any one of a number of causes, so your best plan would be to call in a qualified serviceman.

2. The set has eleven valves, and has a four-gang condenser. What is the wax

which covers the face of the fixed vanes (top and bottom) of the fourth section of the gang, which is smaller than the others?

A.: This is evidently the oscillator tuning condenser. We have not the faintest idea why the plates are waxed, unless it is in connection with some scheme to increase slightly the capacity of the condenser to give better tracking.

"QUALITY" (Devonport): I have lately become troubled with a brushing or rustling noise in my set. It is not loud, nor does it vary with the advancing or retarding of the volume control, while it is there just the same when the radio side of the set is dead and the pick-up is being used. All the valves have been tested, and there are no loose connections.

A.: It is evident that the fault lies in the audio side. It may be due to any one of the following causes—defective bypass condenser or resistor, poor socket connections, or faulty push-pull transformer, either input or output.

"PIAKO" (Hauraki Plains): In the "Diode Five," C2 equals .00025 mfd., C4 equals .00005 or .0001 mfd., while R2 and R4 are each of .5 megohms resistance.

2. A four-pin wafer socket is specified for the speaker terminals. How should the speaker be connected to this?

A.: The field is usually connected to the filament pins and the voice coil to B+ and plate.

3. How can I cut out the tone control?

A.: Merely disconnect the tone control condenser and resistance from the plate of the output valve.

4. I have an inductor dynamic speaker which I previously used with a push-pull battery set. It has a third lead which was attached to the centre tap of the output transformer. Would the speaker give good results with the "Diode Five," and where must I attach the extra lead?

A.: This type of speaker has no field, and so if you intend using it it will be necessary to substitute a choke of 2500 ohms d.c. resistance for the speaker field at present shown in the circuit diagram, because the bias for the output valve is

Information Coupon

(To be used with all requests for information.)

Name of set

Model

Name

Address

.....

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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 3 questions. Enclose stamped and addressed envelope and 1/- fee.

