

QUESTIONS AND ANSWERS

"ME" (Christchurch): A resistor can be used in place of a filter choke only in cases where the "B" drain does not exceed about 5 or 6 mls. This method of smoothing will not be suitable for the set you are planning to build.

"ATHOS" (Hikurangi): There is no danger whatever of damaging the valves if the volume control is turned full on when the set is switched on, though if the set happens to be tuned to a powerful station, you will need no reminder to turn the volume down.

K.J.F. (Te Kauwhata): The .00005 mfd. variable condenser used in the "Eaglet Two" described in the 1935 "Radio Constructor's Guide" is not a reaction condenser but a series aerial condenser. If you have not one on hand then try connecting a length of flex about a foot long to the aerial terminal and then merely twist the lead-in around this for a distance of 6 inches or so. This should provide the necessary coupling, which is adjustable. The circuit you enclose for adding a 2A5 output pentode will work satisfactorily through it would be better to use a 50,000 ohm resistor for the plate load of the 56. If you find you cannot cut the volume down sufficiently by turning back the reaction control, then replace the quarter megohm grid leak of the 56 with a potentiometer of the same value, taking the grid to the moving arm.

C.G. (Nelson): You will find that one of the converters described in the May "Radio Times," now on sale, will work splendidly with your set.

E.H. (Wellington): The cost of running your receiver is approximately the same as that of running an ordinary 60-watt household electric lamp. The winter edition of the "N.Z. Radio

Call Book," now on sale, will give you all the information you require on logging shortwave and broadcast stations. A 3-foot length of 1in. water pipe driven into the ground and with a fairly heavy gauge earth lead well soldered or clamped to it would make a suitable earth for your set.

J.R. (Dunedin): The converter we advise you to build is the battery model of that described in the May "Radio Times." However, if you wish to build up your own from the circuit you enclose, several minor alterations

An Apology to Readers

We regret that owing to heavy pressure on space it has been necessary to hold a number of "Questions and Answers" until next week.

should be made. Firstly, a 13-plate midget condenser should be included in series with the aerial; otherwise you may have difficulty with obtaining smooth reaction over all bands. Secondly, the choke CH1 should be omitted, or if you like include it in series with CH2. Thirdly, .00025 mfd. is quite large enough a capacity for the coupling condenser C4. Suitable turn details for the coils are as follows:—

Band:	Grid:	Reaction:
20-metre	7	3
40-metre	16	6
80-metre	27	9

The above details are given assuming that the coils are to be wound on valve base formers; use 24 or 36 gauge d.s.c. for both windings.

S.G. (Auckland): Would it be possible to wind the broadcast coils of the "Eaglet Two," described in the 1935 "Radio Guide," similarly to those of the "Tom Thumb Two," i.e., with the electron-coupled reaction winding wound over the secondary? If so, how many turns would be required on the reaction winding?

A.: Yes, this could be done, provided, of course, that you use the connections for the coils as shown in the coil diagram for the "Eaglet Two." Twenty turns on the smaller broadcast coil and 25 on the larger should be sufficient.

Note.—The s.w. grid windings of the "Tom Thumb Two" are put on with 24 d.s.c., which is specified in the parts list; 30 d.s.c. could be used, but it rather fine for short-wave.

O.B.E. (—): Is it a difficult task to change a set over to use 2-volt valves instead of 6-volt?

A.: It depends on the types of valves your set uses, and these you have not given. However, if your set at present uses Philips valves, then no doubt you could find suitable equivalents in the new 2-volt series of valves which has just been announced by these makers. Full characteristics appear in the reference section of the 1935 "Radio Guide." The saving in "A" and "B" battery consumption, if any, will depend on the characteristics of the valves you intend to use. Most sets now use 2-volt valves.

"TE KOON" (Gisborne): You will find full details of the choke you are planning to wind are contained in the reference section of the 1935 "Radio Guide." An explanation of the chart appears in Section 7, under the heading, "Audio Chokes."

C.G.L. (Christchurch): On local stations the volume of my t.r.f. set suddenly jumps from zero to full. The valves are O.K., and I have renewed the volume control. The fault does not occur on stations other than locals.

A.: The only suggestion we can make is to give your aerial and earth system a thorough overhaul. A poor or intermittent contact could cause the trouble you mention.

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F. J. W. Fear & Co. Phone 41-446

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