

QUESTIONS AND ANSWERS

L. A.H. (Wellington): I intend to build the "Differential Two," as described in the "Radio Record" during 1930. Could you give me the full coil specifications, using 2in. formers, to cover the short-wave and broadcast band?

A.: Full details of all types of short-wave and broadcast coils are contained in the 1933 "Radio Guide." Why not build up a more modern receiver, such as the 1933 "Night Hawk," described in the last April "Radio Times"?

2. What is a microstat?

A.: A variable resistor.

3. Could it be employed for controlling reaction?

A.: Yes, quite easily. The resistor, which should be of about 50,000 ohms in value, should be incorporated in the B+ detector lead to provide a means of varying the plate voltage and hence the amount of reaction.

E. B. (Auckland): I am planning to build the "Diode Five," described in the 1933 "Radio Guide," but I have not been able to obtain the coil kit.

A.: The coil kit used was the Radiokos 5-16, which may be obtained from any of the agents for these coils.

C. W.W. (Manakau): I intend building the 1933 "Night Hawk." What are the coil specifications?

A.: They are given in the accompanying panel.

"DENNIS" (Wellington): I have had my five-valve set eight months, and lately I am troubled with excess static interference and fading. I am unable to tune in to American stations which verified my reports in April and May.

A.: It is possible that your poor reception is due not to your set but to the unfavourable dx conditions which are obtaining at present. Does your set bring in the Australian stations as well as before?

"MUG" (Taihape): We cannot make comparisons between commercial receivers.

G. W.D. (Ormondville): Would my five-valve commercial set be suitable for dx work?

A.: Yes, this set is particularly good on dx reception.

2. My present aerial is 40 feet high at the set end, 50 feet at the far end, and is 100 feet long. I have no trouble in bringing in Australian, Japanese, and American stations. Would it be worth my while erecting a Beverage aerial of 300 yards long across a gully?

A.: We doubt very much whether it would, unless you are interested in experimenting. Ordinary fencing wire is quite suitable for a Beverage aerial, and is much cheaper than 7/22.

"CANOPUS" (Christchurch): I live on a corner with tramcars passing and a cinema talkie plant a few doors away. Interference is bad, even on the local stations. Would a mains filter be the solution to my trouble?

A.: Try detaching the aerial from the set, and if the interference still continues

grid converter, the 2A7? Also, could any simple modifications be made to employ the 2B7 in place of the 55?

A.: The 2A7 could be substituted for the 57 already employed as mixer oscillator—in fact, it is a valve specially designed for that purpose. However, from all indications it appears that the 2A7 is to be superseded by yet another new valve, the 2F7, the characteristics of which are not yet available. The 2B7 can be substituted for the 55, with very little alteration. Some provision for screen voltage supply would, of course, have to be made. However, both these valves are rather critical in practice, and if you have not had a fair amount of experience, we would not advise you to attempt the substitution.

W. A.J. (Lower Hutt): I have had my six-valve a.c. superheterodyne for a month. I can receive KFI at excellent volume, but cannot get any other American. Is this satisfactory?

A.: KFI is an unusually powerful station, but no doubt you could pick up other Americans if you knew just when and where to look for them. You will find the dx pages of great assistance.

2. For five nights in the week there is a noise in the set like an aeroplane, and if volume is increased it becomes louder. Also if I touch the earth terminal I get a shock. Is this in order?

A.: Your set evidently needs servicing, and we advise you to get in touch with your agent.

G. A.S. (Te Kuiti): I have a five valve a.c. commercial superhet. Is this a good set for dx listening?

A.: Yes.

2. What aerial height and length do you recommend? I am hemmed in on three sides with power lines.

A.: An aerial about 40 feet high and no more than 70 feet long would be the most suitable. It should be erected as far as possible away from the power lines. If interference picked up by this aerial is excessive, however, it would be necessary to erect a special aerial such as that recently described in the "Radio Record."

"PLUGGER" (Timaru): I would like to build a 4 or 5-valve set, if possible employing push-pull and utilising most of the parts I have on hand (list enclosed).

A.: Your best plan would be to build the "De Luxe Five," described in the February "Radio Times." This set employs one stage of screen grid r.f., screen-grid detector, and an audio stage feeding two 230's in class "B" push-pull.

"HOPEFUL" (Wellington): I am contemplating building the "Diode Five," described in the 1933 "Radio Guide," but intend to add band-pass, and substitute a 2B7 for the 55. Is my circuit diagram showing the substitution correct?

A.: Yes. 40 volts is quite sufficient for the screen.

"INTERESTED" (Wanganui): I am building a short-wave adaptor for my 4-valve commercial superhet. The r.f. plate voltage is taken from a flex clipped to one of the speaker terminals.

The 1933 "Night Hawk"

FOLLOWING are the coil specifications for the 1933 "Night Hawk" described in the April issue of the "Radio Times":—

	Aerial	Grid	Re-
			action
24-33 metres ..	3	8	5
42-45 metres ..	5	14	7
80-100 metres ..	7	25	9
Broadcast band	30	130	35

Wire.—Shortwave, aerial and grid, 26 d.s.c.

Broadcast and all ticklers, 30 d.s.c.

then a mains filter would help considerably. If the noise stops, then the interference is being picked up by your aerial and could be cured only by installing a special aerial of the type described in a recent issue of the "Radio Record."

"RECTIFIER" (Christchurch): My eliminator, which has a copper oxide rectifier, supplies 180 volts. Could I use this rectifier for an eliminator supplying 250 volts.

A.: No. It would be seriously overloaded and would soon break down.

2. Could you give me coil particulars for a set of coils for a four-valve all-wave set?

A.: Full specifications for all types of coils are given in the 1933 "Radio Guide."

K. M.W. (—): Is the enclosed piece of wire called shielded wire? I am erecting a special 10-foot aerial and am not sure whether the wire I have is correct.

A.: It is certainly shielded wire, but it will not be suitable, as the shielding is so close to the core that when the shielding is earthed there will be a high capacitive leakage to earth. You require special shielded lead-in wire with wide diameter shielding.

"FIAT LUX" (Thames): In a conventional superheterodyne circuit such as the "1933 Standard Super," would it be possible to make use of the new penta-

Information Coupon

(To be used with all requests for information.)

Name of set

Model

Name

Address

.....

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.