

Questions and Answers

L. G.Y. (Auckland): Could I use the "Neutron Four" as an a.c. set?

A.: You could do, but it is designed as a battery set. If you wish to construct an a.c. set why not build up one of the many which are being described in the "Radio Times"? You would get far more satisfaction. The valves for the "Neutron Four" would be three 227's and a 171 or its equivalent, but such a set would be really old-fashioned. You could use the "Neutron Four" as a battery set and supply the last valve with a.c., using such a valve as PM4 or PM 254.

P. W.S. (Hamilton): One would expect a difference between the "Radio Guide" and the "Radio Call Book" with respect to station particulars, as many of these have changed since the former was published.

R. B. (Birkdale): When I remove the earth wire from my set reception is better, and if I plug the earth wire into the aerial terminal it is the same as with the aerial. By connecting the earth to the aerial reception is doubled.

A.: Quite possibly your aerial and earth terminals have been reversed in the process of manufacture. However, if this is not the case, you are not doing any harm by reversing them.

2. The volume is enormously increased when the earth is removed from an eight-valve battery set, but when an electric light is switched on the volume from the speaker was terrific.

A.: By removing your earth you are working your set closer to oscillation, but we cannot explain why it should be terrific when an electric light is turned on. It may be due to faulty electric wiring, but that is very doubtful.

A. E.B. (Christchurch): I had an aerial 15 feet high and about 120 feet long. Reception was good, though I picked up a lot of noise. I erected a shorter aerial, but I can hear 3YA while listening to 3ZC. The trouble does not occur when listening on a long aerial.

A.: It is usual that the shorter the aerial the more selective is the set. Your best plan to separate the two stations would be to use a wavetrap or a pre-set condenser.

2. Will salt improve the earth system when the ground is sandy and dry?

A.: Yes.

21 MC (Christchurch): I have had the "Sparrow Hawk" going for 10 days, and although excellent results have been had on the broadcast and the 80 metres

coils, the 40 and 20 metre coils are disappointing.

A.: If the set will not oscillate, try several more turns on the reaction winding, but you seem to be doing quite well in getting the stations you have. Tuning on these bands needs much practice. You may get better results by experimenting with potentiometer grid return in order to get a finer control of reaction. This possibly would do away with the hand capacity with which you appear to be troubled.

2. I tried to transformer couple the "Sparrow Hawk" into the grid circuit of a detector valve on an a.c. set, but all I could get was a hum.

A.: The method of connecting the "Sparrow Hawk" one to an a.c. set was shown in the "Radio Guide." You appear to be going about things the wrong way.

ZL1HW (Papakura): What are the filament voltages and current requirements of 2A?

A.: We have not heard of the valve.

2. What would be the voltage drop in a 280 valve working at 400 volts on each plate, at a current of 75 millamps?

A.: About 20 volts, which would be made up by a 4 mfd. condenser next the rectifier. You are asking for trouble by working an 80 valve at that point.

KENT (Christchurch): Will two aerials separated by a 3ft. length of wood and running at roughly the described angle result in interference? The aerials are on the same mast and run to two different sets.

A.: It is possible that interference will be caused between the two. However, with the very stable receivers of to-day it is unlikely that severe interference would take place.

2. What type of aerial would you recommend for my set?

A.: No greater than 80 or 90 feet overall, the aerial to be of the "L" type.

C. J.C. (Eastbourne): Would you give me particulars of the "Night Owl" three-valve short-wave set, as I cannot obtain the back number of the "Radio Record"?

A.: We could not re-describe it here, but a good short-wave set has been promised for the "Radio Times."

3. Where can I get a blue-print of a short-wave set? It must be all-electric.

A.: We do not know about a blue-print, but a full description of an all-electric short-wave set will probably appear in next month's "Radio Times."

"HAM" (West Coast): What are the American Philips' equivalent of the following Mazda valves: H12, L2, P220?

A.: A215, A209, B205.

2. Would my short-wave three-valver be as good as the "Differential Three"?

A.: We have not tried the one you have in mind, so cannot make a comparison.

W. H. (Gisborne): I have a PM5X as first audio and a PM6 in the last stage. Would 2 PM6's be better?

A.: No, PM6 is a power valve and must be used only as such.

2. What screen-grid six volt battery valve do you suggest for the "Kestrel Three"? I prefer Mullard valves.

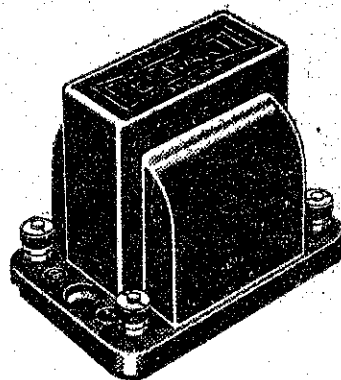
A.: PM16.

2. Which of the following is the true shape of the screening box for the "Kestrel Three"?

A.: "A," with the rear of the set open.

DX56HB (Hastings): What number of turns are required for broadcast coils of the "Kestrel Three," using 1½in. former, 28 enamelled wire, and .0001 condensers?

A.: You will require two coils, one with 170 turns of 30 gauge enamelled wire and the other with 250 turns of the same gauge enamelled wire. It is not a prac-



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