

QUESTIONS: ANSWERS

FRANK KEE



The Technical Editor will, through these columns, be pleased to help readers experiencing trouble with their sets. Queries are limited to three—for more than this a shilling fee is charged, and a similar fee is payable for queries answered by post. Supplying layouts, circuits and solutions of intricate theoretical problems is beyond the scope of this service.

A coupon must accompany all requests for information. Non-appearance of the coupon in any issue cannot be regarded as a reason for its not being used.

Address all queries, The Technical Editor, Box 1032, Wellington.



SNEDDO (Whangarei): What is the voltage drop across a 280 rectifier?

A.: It depends upon the current being passed. In no case is it more than from 15 to 20 volts. If you want to get 250 volts rectified (unsmoothed) your secondaries will be required to deliver approximately 240 or 235.

2. What is the best treatment to give a home-made transformer on completion to guard against insulation breakdown?

A.: Immerse it in transformer wax or transformer compound. Do not shellac it.

3. What is the comparison between a 171A and a 245 power valve with regard to frequency response?

A.: Any valve provided it is operated under conditions recommended by the manufacturers will give an almost perfect frequency response. 245 is the better valve in that in being able to supply a greater power, it is better able to work a loudspeaker at all frequencies than the 171A.

B.H.W. (Foxton): The addresses you require are: ZL2BQ, J. Dacre, Fire Station, Castlecliff, Wanganui; ZL2JX, W. A. McCutcheon, 77 Pretoria Street, Lower Hutt. ZL2HS, W. T. Shannon, 406 Jackson Street, Petone.

2. The yearly subscription to the "Radio Record" is 12/6 post free, payment in advance.

T.A.P. (Otekaite): For full information concerning transformer design, see the 1931 "Radio Guide." Your next question is not clear.

2. The address is: Supreme Instruments Corp., 411 Supreme Buildings, Greenwood, Miss., U.S.A.

R.S.J. (New Plymouth): My set has extra terminals for the loudspeaker. I have been using headphones on these. Is this affecting the set or the phones?

A.: It is most unlikely. It would not affect the set, but it is possible, however, that if there is direct current at the phone terminals you are passing too much current through the phones. However, it is most unlikely, and we think you are perfectly safe.

2. Should I use a condenser with the phones, and if so, should it be in series or in parallel?

A.: It should not be necessary to use a condenser.

E.A.B. (Invercargill): Is there a positive and a negative in a.c.?

A.: Yes, only we do not refer to the positive and negative. Rather they are known as the phase and neutral, but for radio purposes you need not worry about these points.

2. How is it possible to determine the positive and negative when installing an a.c. set?

A.: To install an a.c. set you certainly must distinguish between phase and neutral. In a three-pin plug it is usual for the phase to be the top left-hand pin, the neutral right, and the earth the bottom pin standing on its own. It is possible that the cap can be in any position, but the positions are nevertheless relative. The phase must go to the cord with the red tracer, the neutral to the black, and the earth to the third one, which may be any colour. However, this is a radio serviceman's, or electrician's work, and you should not have to worry about making the connections to the wall. Who ever installs your set is really responsible. There is proper test for phase neutral and earth, but as you are not allowed to make that test there is not much to be gained by our detailing it.

3. We thoroughly recommend the course you refer to. However, if you do not wish to go up for an operator's ticket make this clear to the principal of the school, who will probably be able to arrange for you a cheaper course.

GINGER (Otahuhu): I have a three-valve set, using 227, 112 and two 201A. Would the set be improved by re-

newing with another make of valves?—
A.: No.

2. Would it be much trouble to add a further stage?

A.: Yes, we would not advise you to attempt it.

CONSTANT READER (Otago): Would it be possible to have my set changed to a super het., and if so, what would be about the cost?

A.: No, it would be impossible, without entirely rebuilding it, and this would cost you more than a new set would.

2. What make of super het. battery radios are on the market at the present time?

A.: That we cannot say, not knowing of any, other than the Radiola.

3. Are super hets harder on batteries than others?

A.: No, except that they have more valves, and more valves require more current.

A.P. (Otago): Will the resistances be correct for a super six using six volt valves.

A.: Yes; the resistances are in the plate circuit not in the filament circuit.

2. The theoretical shows two 1 mfd. condensers in the B+1 lead, and none in the screen lead, while in the lay-out diagram it shows one in each lead.

A.: We are afraid that in this case the lay-out diagram is the correct one. There should be a 1 mfd. condenser between each lead and earth.

RAD. (Te Awamutu): When and where are the examinations for the radio serviceman's certificate held?

A.: The period between the examinations has not yet been decided. There will be at least one a year.

2. The examinations are held at a convenient centre in the larger centres

Information Coupon

(To be used with all requests for information.)

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

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"Q.S.T.," Dec., 1931. 1/11.

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"Radio Engineering Principles," by Lauer and Brown, 19/-. (A general text-book on radio).

"Drake's Radio Encyclopedia, 1931" (practical reference work), 45/-.

"The Microphone," (U.S.A. monthly for amateur radiophone), 1/-.

"101 Hook-ups" ("Radio news"), 2/11.

"Modern Sets, 1932," 1/8.

"Radio Call Book and Technical Review" (formerly Citizen's Call Book Quarterly), Dec. issue, 1/11.

"Wireless Constructor" Nov. issue (all the world on one dial), 11d.

"Break-in" December (N.Z. Amateur's publication), 4d.

"Radio Questions and Answers" ("Radio Record"), 1/8.

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"Sound Pictures and Trouble Shooters Manual," by Cameron and Rider. The projectionist's "sheet-anchor," 46/-.

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"Scott's Radio Handbook, 1931," 1/8.

"Wireless Weekly," 32-page call-sign booklet for broadcasters, amateurs and short-wavers, 4d. (Useful.)

"Radio Retailing," Nov. issue. U.S.A.'s best commercial magazine, 1/11.

"Morse Made Easy," 7d.

"Radio Log and Lore" (World's Best Log of the World), 1/10.

"Radio Log" (N.Z.), Dec., 7d.

"Radio Amateur Call Book," Sept., 1931. 5/3.

Special Short-Wave issue ("Popular Hobbies") (Complete list S.W. stations. New time conversion chart. Three special S.W. sets). 7d.—Rush it!

"Practical Radio Telegraphy," by Nilson and Hornung, 18/6.

Blue Prints—"Batteryless Neutrodyne," "Selective Crystal Set, Two Stages Audio," "6-Valve Neutrodyne, One Transformer and Two Resistance-coupled Audio Stages," "3-Valve, Browning-Drake," "7-valve Super Het." 1/6 each.

"Principles of Radio Communication," by Morecroft, 41/6.

"Elements of Radio Communication," by Morecroft, 19/-.

"Direction Finding," by Keen, 27/-.

OUR LOCAL AGENTS:

Auckland: F. R. Jeffreys, 466 Queen St.

Palmerton North: Radio Supplies & Service Co. (E. B. Borham), 245 Main St.

Blenheim: Tomlinson & Gifford.

Nelson: Keith Walker, Baird's Buildings.

Timaru: J. H. Healey, Bookseller.

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