



Questions and Answers



COIL (Northland): I wish to build a battery charger such as that described in the 1930 "Guide," but do not want the "B" side. What alterations are necessary?

A.: You will find full particulars of an "A" charger in the 1929 "Guide."

2. How much current will an English dynamic speaker draw from an "A" battery?

A.: Unless you give the name of the speaker it is impossible to say how much current it will take. Probably it will be in the region of three-quarters of an amp.

3. Where can I have a home-built transformer tested?

A.: Almost every dealer has an a.c. meter which he would put on your transformer.

4. Will the Loftin-White transformer

supply sufficient current for an extra 224 valve?—Yes.

5. Will I have to put on an extra filament winding?—No.

U. X. (Te Kuiti): How many turns are required for transformers using a .00035 condenser, any gauge wire and any sized former?

A.: Secondary 84 turns of 24 d.s.c. wire, on a 2in. former. The primary 25 turns slot wound.

2. On my present set I had 70 turns of 24 d.s.c. wire and the inductance was too high, for I could not tune below 3UZ, and I wish to tune 1ZD on 150.

A.: The ordinary broadcast does not go down to 150, so we advise you to make another coil with 30 or 40 turns. A 65-turn coil would be normal for the broadcast band.

3. Can you tell me if the usual screen-grid connections act as well as the space-charge connections?

A.: Use the ordinary screen grid, preferably transformer coupled.

M. (NAPIER): Would a pile of stampings 1½in. wide and ¼in. thick be satisfactory for the Loftin-White following the 1½in. specification?

A.: Your best plan would be to build the stamping up to full thickness, 1½in., and redesign the winding in accordance to numbers of turns given on page 55 of the 1929 "Guide" and in the 1930 "Guide." If you cannot manage this yourself we could do it for you.

2. Will Pilot No. 377 choke be suitable for the transformer?—Yes.

3. Details have been published of the L.W. with r.f. stages. When are you coming to light with your description?

A.: It is on the plan we have for future construction items. When the d.c. eliminator is finished we will, in all probability, commence a series of receivers, working from a one-valve upward, following this a two-stage Browning-Drake, and then the L.W. tuner. However, the bare circuit will be published before then.

C.J.M. (Bombay): What is the maximum output in watts when using the 250 valve?

A.: We have not seen this stated definitely, but it must be in the region of 6 watts.

2. How much louder would signals be using a 250 valve with the 245?

A.: A 250 can handle a greater output without distortion. It does not step-up the signals greater than does 245. If anything, it is less.

3. Will you explain how to connect the amplifier to the detector valve of the set?

A.: The L.W. takes the place of the ordinary amplifier and is used after the first audio transformer.

4. What type output transformer would be suitable for either a magnetic or dynamic speaker?

A.: Most dynamic speakers are provided with a step-down transformer, so you should use a 1-1 or a tapped secondary would be better, and use this in conjunction with the 25-1 in the case of the dynamic speaker.

F.A.A. (Hammer Springs): I enclose a plan of a receiver. What are your comments on it?

A.: The receiver is evidently a very old one, and you will find a much better described in the "R.R." as the "Shielded Five Neutrodyne." Your diagram makes no provision for grid bias which is essential if quality is desired. Furthermore, this circuit as it stands would ruin a power valve. The best valve would be 221 type in the radio and first audio sockets a special detector and a power valve of the 112 type. This combination cannot be used without bias.

2. How far should I be able to reach?

A.: That depends upon your locality. If it is not very poor you should get the Australian stations quite well.

3. Could a screen grid valve be added?

A.: Yes. It could take the place of either the first or the second valve, but would need to be shielded.

4. What wire is required for resistances with the d.c. eliminator?

A.: See this week's instalment.

P.K.B. (Oamaru): Can I add another valve to the Cossor Melody Maker?

A.: Yes, another audio stage was described recently.

2. How much will it cost?—About £2.

3. Can I change my set into an all-electric, and how much?

A.: It could be converted satisfactorily if you had the requisite knowledge. About £10 providing "A" transformer.

4. What stations operate below 200 metres?—Try the DX Club.

H.J.G. (Wellington): Why can I hear wireless with the earphones and the connections lying on the floor or in my hand? Forty years back when I was on a bush section in Taranaki I often used to hear music. Now I hear the same thing only more distinct.

A.: It is almost impossible to explain this phenomenon. You may have un-

RADIO DIRECTORY

What to Buy and Where

CITIES

ACE and HAMMARLUND SETS,	Johns, Ltd.
WESTINGHOUSE Rectifiers	Chancery Street, Auckland.
BROWNING DRAKE SPECIALISTS	F. J. W. Fear & Co.
	63 Willis Street, Wellington.
BURGESS RADIO BATTERIES,	All Radio Dealers.
KING RADIO RECEIVERS ...	F. J. W. Fear & Co.,
	63 Willis Street, Wellington.
LOFTIN-WHITE AMPLIFIERS	Stewart Hardware Ltd.,
	Courtenay Place, Wellington.
MAJESTIC RADIO RECEIVERS	Kirkcaldie & Stains,
	Wellington Agents, Lambton Quay.
MULLARD VALVES	All Radio Dealers.
PILOT 1930 PARTS—PILOT SUPER WASP KITS, GILFILLAN, KELLOGG and ATWATER KENT SETS	Harrington's, N.Z., Ltd.,
	138-140 Queen St., Auckland.
	40-42 Willis St., Wellington.
RADIOLA RECEIVERS and Expert Radiola Service.	Farmers' Trading Co., Ltd.,
	Hobson Street, Auckland.
STEINITE RADIO	G. G. Macquarrie, Ltd.,
	120 Willis St., Wellington.

COUNTRY TOWNS

MAJESTIC, ATWATER-KENT AND RADIOLA ELECTRIC SETS	Radio House, Hamilton.
	G. S. Anchor Manager.
PHILIPS VALVES AND APPARATUS	All Good Radio Dealers.

N.Z.'S OWN RADIO BOOKSHOP

The TE ARO BOOK DEPOT, Wellington.

JUST ARRIVED—Prices include postage:

"Radio Amateur Handbook" (Handy's) 6th edition, third printing June, 1930. 5/3
"Radio Amateur Call Book," June, 1930. 5/3
"Projection Engineering"—a monthly, 21/- per annum.

"Radio Manual," by Sterling and Kruse, latest edition, 26/-.

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

"Thermionic Vacuum Tube," by Van der Bijl, 26/-.

"Practical Radio Telegraphy," by Nilson and Hornung, 15/6.

"Radio Operating—Qstns. and Ansrs.," by Nilson and Hornung, 14/-.

"Radio Receiving Tubes," by Moyer and Westrel, 14/-.

"Practical Radio Construction and Repairing," by Moyer and Westrel, 14/-.

"Electric Wiring," by Ibbotson, 10/-.

"How Radio Receivers Work," by Roberts, 8/-.

"Radio Physics Course," by Ghirardi, 13/-.

Also all leading English, American and Australian wireless magazines.

Mr. F. W. Sellens' list of Shortwave Broadcasting Stations, 7d.

Last year's "N.Z. Radio Listeners' Guide" still selling well, 2/9.

"N.Z. Radio Handbook Annual, 1930," 2/9. Blue prints and complete instructions on following—1/9 each:—

7-Valve Super-Het,
6-Valve Neutrodyne,
5-Valve Neutrodyne,
Batteryless Neutrodyne,
Selective Crystal Set, 2-stage Audio
All about Aerials.
Simple Wave Trap and Clarifier.

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