

QUESTIONS AND ANSWERS

L.H.R. (Christchurch): I would like to build a one or two-valve short-wave set. Where could I obtain constructional details?

A.: From the 1935 "Radio Guide," now on sale. You could not do better than build the "Tom Thumb Two," which gives very fine results on both the short-wave and broadcast bands.

C.H.F. (Dunedin): You would obtain more audio gain by amending the circuit for your duo-diode second detector along the lines indicated in the circuit of the "Comet Superhet Five," described in the 1935 "Radio Constructor's Guide."

"T.R.F." (Dunedin): If you do not wish to make any circuit alterations to your set, replace the 224's with 224A's; otherwise make no change to the replacement types. You could improve the selectivity by using an aerial tuner such as that described in the 1935 "Radio Guide," or by taking a few turns off each of the primaries of the r.f. coils; it would not be practicable to convert your set to a superhet.

A.C. (Tirohia): It would be quite possible to use two 30's in push-pull to drive a 19-valve, but there would be no point in doing this, as a single 30 can fully load a 19. By the way, have you had the 30 tested recently? If it is a little "off colour," volume will be poor.

H.M.B.K. (Paeroa): Evidently the volume control in your set is defective, and should be replaced.

A.T. (Pokeno): I have an old three-valve battery set which I intend to convert into a four-valver with a screen-grid r.f. stage. I would like to use a Browning-Drake circuit.

A.: There is no need to use the Browning-Drake circuit if you are using a screen-grid r.f. valve. An ordinary "straight" t.r.f. set such as the "Midget Three," described in the March, 1934, "Radio Times," would suit your requirements.

2. What type of valve should I use?

A.: In the 6-volt series, a Philips 642 or a Mullard PM16.

3. What would be the details of the coil windings?

A.: You have not given the capacity of your tuning condensers or the size of coil former you want to use. Send this information along and coil details will be supplied.

"TENDERFOOT" (Whakatane): A type B605 power valve would be the best replacement for your output valve. Be careful to apply the correct bias.

2. Could you give me a line on how to proceed with the calibration of a home-constructed oscillator?

A.: This could be done quite easily by beating the output of the oscillator against the carriers of the main broadcast stations, as outlined in the "Radio Times," dated January, 1934.

3. The oscillator I have constructed used a 2A5. When used for such a purpose, does this valve still require its usual grid bias?

A.: This depends on the circuit, which you have not enclosed.

"T.E.F.C.Y." (Carterton): How could I add a pair of phones to my set?

A.: Connect one side of a fixed condenser of from .01 to .1 mfd. and of high test to the plate of the output pentode. Connect one side of another condenser of similar capacity to earth. Then the headphones are connected to the remaining two free terminals on the condensers. Fit a switch in one of the voice coil leads

to the speaker to silence the latter when the phones are being used.

2. My set is not as selective as I should like, and there is a great deal of heterodyning on most of the smaller stations.

A.: You could try using a shorter aerial, but you would probably lose a fair amount of your signal strength on distant stations. The fact that your set has not an r.f. stage accounts for the comparatively poor selectivity.

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