



Questions and Answers



KILJO (Invercargill): Can a blasting loudspeaker be remedied?

A.: The blasting may be due to several factors—the speaker may be totally inadequate to handle the volume you expect it to; there may not be a power valve in the last stage, and the bias may be unsuitable. You may be expecting the set to carry too much; and some of the batteries may be flat, particularly watch the "C" battery.

2. I am troubled with a hissing noise. Is it the fault of the aerial or the valves?

A.: Remove the aerial and see if it persists. It may be due to electrical interference, or a defective component. It is probably not due to valves being unbalanced. The set may not be neutralised.

3. Would an eliminator be of any use?

A.: An eliminator would give you a constant supply of "B" current without the worry of batteries. You would prob-

ably be able to get much higher voltage than would be practicable with batteries.

DETECTOR (Invercargill): Can an ordinary crystal detector be used in the place of the semi-permanent detector shown in the Radcord crystal set in the 1930 "Guide"?

A.: Yes, but you would have to alter the lay-out slightly.

KILOCYCLE (Bluff): Can you tell me how to add a stage of screen grid r.f. to a four-valve B.D.?

A.: We have forwarded you your sketch with the screen grid valve shown. It will be necessary to shield each stage of r.f., and the detector or the coils and the screen grid valve in cocoa tins.

2. Have you a circuit of a screen grid booster?

A.: We do not advise the use of a s.g. booster. It was a good expedient before the use of the s.g. valve was properly understood. It is now better by far to incorporate this valve in the receiver itself. It may be used in either the first or the second stage and should for preference be transformer coupled with about 25 turns on the primary, when a 2 1/2 in. former is used.

3. How many turns would a 409 require on a 2 1/2 in. former?

A.: About 12.

4. When I put more than 16 or 17 volts on the detector the second last stage motor boats.

A.: Reverse the connections to the primary of the first audio transformer and if this is unsuccessful try the second audio. It may be that you are drawing too much from your eliminator.

5. For local reception I usually use PM4 in the first audio.

A.: This is quite wrong. A general purpose valve will be quite sufficient.

"THIRTY-THREE" (Timaru): When I connect a pick-up to my set a whistle is heard in the speaker and the music becomes distorted as though the speaker cannot carry the volume.

A.: Perhaps you had the volume control turned on too full. If this is not the case see the dealer who sold you the set and ask him if you have connected the pick-up correctly as you do not give us sufficient details.

2. Can I use a short-wave adaptor on my set, and where could I obtain one?

A.: If you do not care to make your own, communicate with Mack's Radio, Wellington, who are specialists in short-wave sets.

3. Which is the better pick-up of the two I mention?

A.: Sorry, but we cannot discriminate between two commercially-made products.

"GAINING EXPERIENCE" (Queens-town): If I remove some turns from my coil would the lower limit of the tuning range be lowered?

A.: Yes, but you would clip off some of the higher waves. Your best plan would be to get specifications of coils for the wave band you wish to cover. If you let us know the capacity of the condensers and the size of formers we would design them for you, but try your dealer first.

2. I have two plug-in coils; which one should I reduce?

A.: You must take an even or proportionate number of turns off each secondary coil.

3. When I connect the pick-up across G. and F. of the detector valve my tuning was altered about 10 deg.

A.: This was due to the extra capacity the pick-up introduced into the grid circuit. Providing you disconnect this apparatus when it is not in use your tuning range should not be affected.

"LONGWAVE" (Auckland): What voltage should I use for a two-valve set to get really good results?

A.: As high as possible, but if you are using batteries 135 is a practicable value.

2. Can I obtain a copy of the "R.R." containing a description of "R the W Two"?—Yes, from our office.

3. If I construct a R. the W. two, how

far should I be able to get on the loudspeaker?

A.: Not very far, as the set is primarily designed for phone work. Do not be disappointed if you do not get any short-wave stations on the speaker satisfactorily.

4. What valves would be needed?

A.: The two you have should be satisfactory if they are of the 201A type.

PICKUP (Eastbourne).—I am building an amplifier with two stages of push-pull. What is the nearest ratio of Ferranti output transformers to supply a unit with a resistance of 1300 ohms?

A.: Use an output transformer with a tapped secondary, and see which one suits your receiver best.

2. If I use two of these speaker units would the ratio need altering?

A.: Yes, and herein lies the value of the tap transformer.

3. I intend using a trickle charger to supply the filament current. Would you give the specifications of a suitable choke?

A.: You will find a fairly full description of a suitable choke on page 65 of this year's "Guide." If you have not a copy and cannot borrow one, write us again and we will reprint the article in the "Record," as quite a number have asked for it.

4. What is the approximate capacity per sq. ft. of surface of first-class aluminium, and also the best solution for a condenser?

A.: Your question about the capacity of aluminium is most indefinite. A short

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