

3. I have all the "B" leads on to the 120 volts tapping. Is this right for the "Super Six"?

A.: B + 1 might be lower.

DX83MC (Christchurch): When volume is full on, with the aerial disconnected and the set on the local switch, I get jumps and thuds which is not static, as I tune the dial from 200-250 metres.

A.: Without further information as to the behaviour of the set with an aerial, on the distant switch, and at full volume, we cannot help you. In any case, service instruments would probably be needed to diagnose the trouble.

A. W. (Wellington): Would a Beverage aerial improve my reception, and what is it?

A.: A Beverage aerial is one about 400 yards long, and is erected about 10ft. high. It must point toward the station to be received, and the distant end is grounded through a 750 ohms resistance. It would probably improve results considerably.

2. Can you suggest anything to improve my reception?

A.: You are in a bad place. The bush nearby is likely to absorb a large portion of the signal strength, while the hills act as an excellent shield.

3. Would a pre-set condenser improve the number of stations received?—No.

A. P. (Otara): The more I increase the volume the greater the selectivity of the aerial tuning condenser decreases. Is that in order?—Yes.

2. On short-wave the condensers will resonate only very weakly with the oscillator condenser.

A.: It is important that the mixer valve be either HL610, 630 or one with an impedance varying between 25 and 50,000 ohms. Other types are unsatisfactory. Are the a.g. valves o.k.? Take B + 1 to 110 or 115V, even to max. B + 2.

MUG (Palmerston N.): With the aerial disconnected I find that turning on the electric hot water element volume decreases, but with the aerial there is no difference.

A.: Without the aerial you are operating the set at maximum, and by turning on the heater the volume is decreased slightly, and the loss is apparent. When the aerial is on you are not working your set at peak, and the slight drop in voltage is not noticed.

CURIOS (Pukekohe E.): The last we heard of these sets was that they were handled by the Natela Radio Company, Wellington.

DX60A (Hamilton): Would the enclosed circuit be suitable for a short-wave adaptor to plug into the detector socket of my a.c. set?

A.: Yes, if you take the lead from the tickler coil to the plate terminal of an old valve socket, and connect the earth to the

chassis of your set as well as the chassis of the adaptor. The grid condenser should be about .0001, grid-leak from 7-9 megohms. Use a .0001 tuning condenser if the coils are specified for the "Night Hawk" Two.

DUFFY (Lincoln): The power pack should be approximately 450 volts. A humbucking device in this circuit is not considered necessary.

25A. (Auckland): What is "band-pass tuning"?

A.: A system employing two tuned secondary coils to one primary coil in the aerial circuit. The idea is to get greater selectivity.

2. What stations are between 100 and 200 metres?

A.: In N.Z. there are practically none to be heard. American police stations operate generally on this band.

3. Would a Beverage aerial give good results on shortwave?

A.: We have not heard of it being used on short-wave, and think it would be unsuccessful.

H. J. W. (Auckland): Yes, we shall publish the circuit of an all-wave receiver, with a gramophone switch in a forthcoming issue of the "Radio Times," probably the October issue. The circuit, like the "Radiogram Five," could use plug in coils.

2. Could I use my ordinary transformer in place of the pushpull ones illustrated?

A.: They can be used by shunting both primary and secondary with resistances, but usually such practice is not satisfactory.

PUSH (Taitville): You want a copy of the "Night Hawk" Two—and elaboration of the "Sparrow Hawk" One. Unfortunately copies of this have been sold out. Possibly we may alter it slightly and redescribe it. It was very popular.

PENTODE (Papakura): Is it in order to take the high tension lead from one of the filament legs of the rectifier socket instead of from the centre tap?—Yes.

2. Where can I fit phones to the "DX Four"?

A.: Instead of a speaker, but you would necessarily have to incorporate an output choke.

3. Where could I put in pickup terminals on the "DX Four"?

A.: The pickup would need to be connected between the grid of the detector and earth.

4. Can the filaments of all three valves be taken from the same filament winding?

A.: Yes, if it will carry the current.

"SEZ YOU" (Waimate): When tuned below 83C, Christchurch, the set distorts badly, but the distortion disappears when the volume control is on full.

A.: Such trouble is hard to diagnose without instruments. In all probability the condensers are out of alignment or the volume control is faulty.

FARAD (Tauranga): The flexible lead to the grid of the screen-grid valve fell against the metal cabinet. A good spark was thrown, and the set has been dead ever since.

A.: It could not have been the grid which caused the spark unless there was some mistake in the wiring of the set. If you are using batteries you have probably ruined the battery. Further details of your set would have enabled us to help you.

H. A. I. (Hamilton): Which would improve the tone most, two 245's in pushpull or a pentode?

A.: The tone of the pentode is more brilliant, though most people prefer the less brilliant tone of the 245, so that tone controls are used with the pentode.

2. Where is the correct place to use a pickup to a set with a screen-grid valve as detector?



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