



Simplex Condensers

[500 and 1000 Volts]

Under a most careful test, carried out by the I.T. & T. Laboratories, Standard Simplex Condensers have proved themselves the most outstanding Condensers on the market. The test consisted of immersion in water for 4 hours, storage in an atmosphere of 80 per cent. humidity for 4 to 12 days and then subjected to a 3 to 4 minutes' 1000-volt D.C. Test. What more could be expected from a Condenser? Isn't it proved beyond all question of doubt that Simplex Condensers have perfect insulation; that they must be hermetically sealed, and that their general all-round efficiency is something never before obtained from any Condenser. Change over to-day—the installation will not take long but the "Simplex" will be there for years.

Standard

Telephones and Cables (Asia) Limited.

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10/10/32.

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WELLINGTON

Day and Night Service



Questions and Answers

WIRILESET (Nelson).—I get 2ZR all over the dial. What can I do?
A.: Instal a wavetrap, such as was described in the "Radio Guide" for 1931.

WAERENGA (Waikato).—I intend building the 1931 superhet. adaptor described in the "Guide" to attach to my 45E. Can I use batteries for supplying the plate current of the 227 valves?
A.: Yes, but why go to that trouble when you can draw the power from your set?

2. How would I derive the power from my set?

A.: By making a connection on the set side of the field coil of your dynamic speaker and taking this through a 20,000 ohms variable resistance to the adaptor. If you intend to construct the adaptor build it on a metal chassis and place as many of the components as possible underneath.

IGNORANT (Waikato).—About 15-30 minutes after my set is switched on it fades to about half strength, but after about 9.30 p.m. the set behaves quite satisfactorily.

A.: You leaves us in a maze. Frankly, we cannot help you. Your trouble may be in the set or outside it, and without instruments diagnosing the trouble is hopeless.

DX141A. (Kingsland).—Do I use more power by using an inside aerial than an outside one?

A.: No; your set uses the same amount of power irrespective of the amount of signal picked up.

MOTU (Hinu).—Can water from a concrete tank caught off an iron roof be used for the Daniell cell charger?

A.: It may be all right, but a better plan would be to collect it in an earthenware vessel.

20 (Dunedin).—I recently replaced the valves of my Radiola 20 with Philips 4 volts, and had the set re-neutralised. The set oscillates more readily than before, and is apparently less selective. Is this any fault?

A.: This is due to the newer valves being more efficient. Reduce the voltage on the detector valve to about 22½. The set is less selective for the same reason.

2. Would a six-valve set with two dials convert to a single dial successfully?—Yes.

A.R. (St. Leonards).—A four-valve Hammarlund Roberts set was fully described in the 1930 "Radio Guide."

T.P. (Nelson).—My set distorts although I have had new valves and batteries.

A.: Probably the bias is wrong. With 605 and 90 volts "B" you should have about 12½ volts. Your valves appear to be correct, but it is impossible to get at the root of the trouble without using measuring instruments.

THANKFUL (Oamaru).—The "Outspan" goes well if one of the coils is uncovered, but it will not oscillate if it is covered. Would it do so if I added a few more turns to the tickler?

A.: Probably. The coil can be introducing a certain amount of damping.

2. Could I use enamelled wire instead of d.s.c. without altering the number of turns?—Yes.

L.A.H. (Wellington).—How many turns need I put on the coils of a regenerative set with a crystal detector?

A.: Using a 2in. former, with 26 d.s.c. wire, you require 72 turns on the secondary, 30 on the primary, and with a .00025 reaction condenser 20-25 on the tickler.

CIRCUIT (Christchurch).—Apparently your battery is connected correctly, and it seems as though the meter terminals have been reversed.

2. When I switch on there is sometimes a low roar in the speaker, which grows in volume every second. When I change the detector valve it does not happen.

A.: A microphonic detector. Either put a lead cap or an internally padded cocoa tin over the valve.

3. What is the best way to tune in a station that one has not the numbers for and can I use one dial instead of two?

A.: Your best plan is to look up the known station near wavelength of the wanted station, and search in the vicinity. The two condensers can be ganged, but it requires certain internal alterations—maybe new condensers. It would not be inexpensive.

B.S. (Wanganui R.).—Is a 3 x 2½in. former suitable for the "Outspan Five"?

A.: Do you mean for the coils? If so, it is a little big, if you have to use coil cans.

2. What is the size of wire and how many turns should I use for .00035 condensers, and .0002 differential condensers?

A.: The secondaries require, using 24 d.s.c. wire, 60 turns. Primary, aerial coil, 20 turns; r.f. coil, 30-35 turns; reaction coil, 15-20 turns.

3. We regret we cannot supply the wiring diagram. It will be the same as that published.

H.P. (Matakana).—Are the following valves suitable for a four-valve Courier: A425, A415, B406?

A.: Leave B406 in the last stage, but this valve in the second last stage is entirely wrong, in that it is a power valve, which draws a large current and is liable to saturate the primary of the last transformer. This valve should be replaced by A409 or a similar valve. Similarly A425 is a high gain valve, and is liable to introduce instability into a set of that type.

SUPERHET. (Te Kauwhata): K. Frazerhurst, Whakatane, Bay of Plenty.

W.H.G. (Swanson): I can take a Beverage aerial either between two hills or down in the gully and up. Which is correct?

A.: It will be quite in order to stretch it between the two hills. It is not an ideal situation, as a Beverage aerial should be low to avoid static and atmospherics, but by dipping it in the gully it would be shielded.

DUN. (Wairoa): When I tune in a station the squeal is greatly magnified by our next door neighbour's seven-valve set. How can I stop this?

A.: You are not tuning in correctly, for you should never let your set squeal.

(Continued on page 22.)

Information Coupon

(To be used with all requests for information.)

Name of set

Model

Name

Address

.....

.....

Nom de plume

To be kept in subsequent inquiries

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.

(4) Limit three questions, unless 1/- is enclosed.

(5) Postal queries limit three questions. Enclose stamped envelope and 1/- fee.