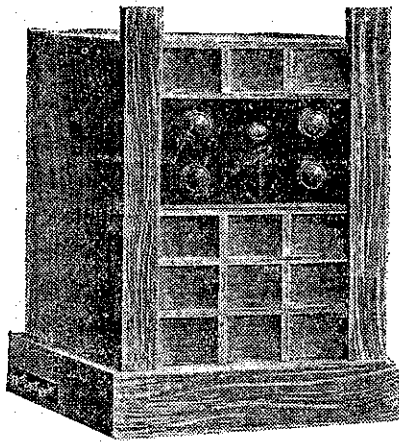
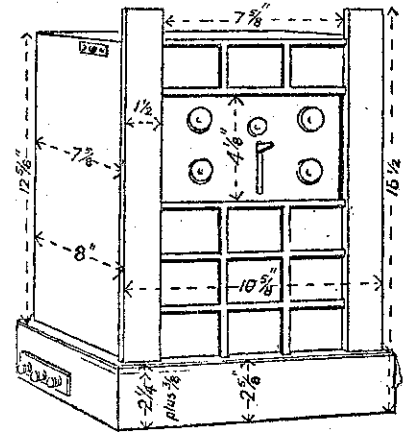


The "Presto" Change-over Local Receiver



Incorporating the famous Loftin-White circuit and multi-mu valve

By "MEGOHM"



Cabinet Dimensions

TO be able to sit at ease and change from one local station to the other by the mere movement of a switch is the object of the two-station receiver described below. Moreover, the two stations must come in at good and equal loudspeaker volume, however they may differ in actual power output. This receiver has been designed to accomplish this desirable end.

Quality reproduction, needless to say, is also imperative in the modern local receiver, and this condition has been attained by the adoption of the Loftin-White type of amplifier, which is preceded by the new variable-mu UX235 type screen-grid valve. In order to strengthen the reception of weak local stations, the amplifier has been slightly modified to include reaction, which, however, is not intended to be used too freely. Incidentally, it may be possible to bring in certain distant stations under favourable conditions by making use of reaction, but the receiver has not been designed with this object in view, the

aim being to keep the radio tuning gear as compact as possible.

The Cabinet.

THE neat appearance of the cabinet will be appreciated by a glance at the general view of the receiver. Woodwork gives a more distinctive air than can be produced in metal by the amateur craftsman, though, of course, some constructors will prefer to use aluminium alone. Actually, the necessary woodwork has been designed to be effective and at the same time present as easy a task as possible to the amateur woodworker.

The wooden case is lined with sheet aluminium of 16 gauge, which forms

a complete shield against radio interference and at the same time isolates the power-pack which is housed in the lower portion of the cabinet, with the radio gear above, and smoothing condensers and output transformer in the base.

It may be stated here that if built as specified, no background whatever is heard from the unwanted station when tuned to either 2YA and 2ZW at a distance of two miles from the former station. Although great volume may be obtained from either station, quality remains remarkably good at the full output. Although selectivity is good, it is not so sharp as to preclude slight de-tuning of the aerial circuit in order to decrease volume without affecting quality, and by adopting this method, extra controls are dispensed with, so that each station is received with equal volume, only the operation of the switch being required to change over.

The switching is arranged so that the stators of either of two pairs of tuning condensers are connected to

their respective valve grids, and in accomplishing this the chief care is to keep the respective grid leads well separated. Experiments showed that a specially-designed switch would be necessary to carry this out, and an easily-constructed pattern was worked out, having the advantage of being certain in operation and not too bulky.

Pick-up Provision.

PROVISION is included for the operation of a pick-up directly into the two-stage amplifier, in which case a pick-up with good voltage output is an advantage.

Excellent results and adequate volume are obtained from a heavy duty magnetic speaker of the 66R or Farrand types, but if desired a dynamic unit with low-wattage field may have the latter excited by inclusion in the resistance chain, as will be shown.

Constructional Details of the Cabinet.

THE front, sides and base of the cabinet are made from 3/4 in. rimu, all dimensions being given in the diagrams. The top may be plain metal, or wood lined with metal.

Make the base first, then build the upper portion upon it, allowing the base to project 3/4 in. at front and sides, and 1/2 in. at back—this allows of screws being placed in holes drilled in the base to hold the upper part in position. The ornamental bars on the front are strips 3/4 in. wide and 3-16 in thick, glued on.

LIST OF PARTS

For the "PRESTO" Local Receiver

- | | | |
|--|----------------------|------------------------------|
| 1 .0005 Telsens Bakelite Dielectric Condenser, 3/-. | 1 4 mfd., 9/-. | 1 2 mfd., 5/-. |
| 4 1 mfd., 3/- each. | 2 .5 mfd., 2/9 each. | All standard 1000 volt test. |
| E.C.C. .008, 3/- each. | | |
| Jack Closed Circuit, Igranite | 2/3 | |
| 2 in. Diameter Coil Former, per inch | 3d. | |
| 20 ohm. C.T. Resistor | 2/- each | |
| Output Transformer Ferranti | 35/- each | |
| Spaghetti Resistor, 1 only, 30,000, 1/6; 1 only 70,000, 2/3; 1 15,000, 1/6; 1 20,000, 1/6; 1 450 wire wound "Pilot," 4/6; Graham Farish Resistor 2, 1/2 meg., 2/6 each; 1 only 1/2 meg., 2/6; 1 only 2 meg., 2/6 (Ferranti). | | |
| 1 Standard 15,000 ohm Voltage Divider | 6/6 | |
| 2 Standard R.F. Chokes | 3/- each | |
| 2 UX and 2 UY AWA Sockets, each | 1/6 | |
| 4 dozen Strips 1 in. Stalloy | 2/- dozen | |
| Clamps and Bolts | 3/6 per set | |
| 1 1/2 lbs. 32 Enam. Wire | 5/6 lb. | |
| 1 lb. 28 Enam. 3/6; 1 lb. 20 D.C.C., 1/9; 1 lb. 26 Enam., 1/6; 1 lb. 18 D.C.C., 1/6. | | |
| All other small parts at keen prices. Send for Complete Kit. | | |
| VALVES—PHILIPS AMERICAN EQUIVALENT TYPE: | | |
| UX 224, 8/- | UX 280, 7/6 | |
| UY 227, 7/6 | UX 226, 7/6 | |
| UX 245, 7/6 | | |

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| Electric Soldering Iron | 17/6 | 3 Bead Hydrometer | 1/- |
| Soldering Outfit | 2/6 | Screw Driver | 6d. |
| Morse Keys | 13/- | Headphones | 5/- pr. |
| Small Voltmeters | 9/6 | Crystal Sets | 5/- |
| All-Electric Receiver | £14 | Battery Carrier | 3/6 |

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