

MAGNETO WALL TELEPHONES - HANDSET TYPE - 233MW (STROMBERG CARLSON)  
AND 235MW (BRITISH ERICSSON).

1. The type of magneto handset telephone hitherto used for wall mounting consisted of a bakelite table telephone and bellset mounted on a steel wall bracket, together with a separate generator fitted in a wooden case, separately fastened to the wall, and a separate battery box. This combination of standard parts was used in the absence of a satisfactory magneto wall telephone instrument which included a handset. The method of mounting a table telephone on the wall by means of a bracket was therefore the best compromise, but a better method is now available.

2. The advantages of a telephone which includes a handset have been realised for many years. In magneto service the early Swedish model used in the Commonwealth, and later the Commonwealth Ericsson model, employed a form of handset which gave good service for the requirements of the system at the time, but the type of handset used, particularly the transmitter, was not suitable for all conditions and was not standardised for modern service. The Department still has a number of these instruments in service, but has not purchased any of them for years and difficulty occurs in maintenance, because the parts are no longer purchased and replacement parts are dependent upon securing parts obtained from old instruments which have been scrapped. It can be understood, therefore, that when one of these instruments is out of order parts for replacement may not be available. The normal action is to withdraw it from service by replacing it with a later type telephone with fixed transmitter. This is not as convenient as the handset type, but is the standard on which the Department's present day minimum rental is based. It provides satisfactory transmission for normal purposes.

3. Where a wall telephone of the handset type is required, an additional rental is charged and this rental applies to the telephone instruments 233MW and 235MW described herein.

4. The improvement which a telephone of the handset type affords is in the quality and volume of transmission and reception. These improvements are obtained from the type of transmitter and receiver included in the moulded (bakelite) handset and by the improved circuit of the telephone. The new instrument gives all these improvements and also is the first magneto handset type telephone, incorporating an anti-sidetone circuit, issued for general use.

5. The improvement afforded by an anti-sidetone circuit is generally known. The anti-sidetone principle reduces the volume of the input speech which is heard in the receiver of the transmitting telephone. That is, the person speaking will not hear his own voice so loudly, and external noises in the room will not enter the transmitter and come back into the receiver to the same extent as previously. The speaker therefore hears less "sidetone" in his own receiver when he is speaking and while this adds to his comfort, it causes him to raise his voice slightly and the person at the other end hears him more clearly.

6. The telephones are of the general types shown in the illustrations on pages 5 and 6, although the notice has been amended slightly.

7. As the telephones are a new issue and will replace the previous standard, this instruction is intended to convey to all concerned, details of the new instrument and the reasons for its adoption as shown in the foregoing.

8. As will be seen from the illustrations, the telephones are of the conventional wall type and are a one piece unit containing all the necessary components. The handset is furnished with what is now a standard type of switchhook and when the telephone is being installed it is desired that the subscriber should be informed of the need for exercising a little care in hanging up the handset on the switchhook so that the mouthpiece will not strike against the wall. This may happen through carelessness, although the upper portion of the switchhook is set slightly backward so as to reduce the liability to trouble from this source. The attached illustrations have been prepared for use in the country, as it is sometimes necessary for a subscriber to instal new dry cells or to change a handset. The illustrations show these two telephones, the layout of components and the circuits.

9. It is also desired that subscribers should be shown the necessity for occasionally clearing the cord from twists and tangling. This action is desirable for all telephones and will tend to reduce the liability to interruption of the subscriber's service through a faulty cord, as well as improving the appearance of the instrument.

10. The advantages are summarised as follow:-

- (a) The instrument is a complete magneto handset wall type unit instead of consisting of 5 separate items of equipment.
- (b) The telephone is fitted with a writing slope provided with a clip for card or note pad.
- (c) An anti-sidetone induction coil is fitted and the circuit is so arranged that the reduction of sidetone is greatest when the telephone is used on long lines. That is, it is greatest when it is most useful. The efficiency of transmission and reception is equal to that of the bakelite magneto telephone previously issued.
- (d) When a standard magneto wall telephone of the fixed transmitter type is to be changed for an instrument of the handset type, the latter can now be fitted in the same position on the wall as that occupied by the former telephone. In cases where it is desired to exactly cover up the position of the former telephone, it is possible to obtain a telephone of the new type having either the Stromberg Carlson shape or the

British Ericsson shape. If there should be any difficulty through the position of stocks in this regard, a back board may be necessary.

11. Cases have come under notice where it is proposed to issue the new type of instrument as a replacement for the former Swedish or Commonwealth Ericsson type without charging the additional rental. It will, of course, be understood that in no circumstances are these old telephones to be replaced with the new type without the extra rental mentioned.

12. Cases have also come under notice where, for the Swedish or Commonwealth Ericsson type instrument, the old handsets have been replaced by new bakelite handsets and this action is, of course equally wrong, not only because it is an embarrassment to the Department, but also because the advantage of the handset cannot be realised under the old circuit conditions.

13. Where telephones of the new type have been made available by the conversion of renovated wall type wooden telephones, the Installing Mechanic is requested to see that the telephone is not erected unless it is in a condition which is practically equal to new and does not invite criticism. In cases where such an instrument may be fitted with a dial dummy, it should be returned to Stores.

14. In cases where telephones of the old standard mounted on wall brackets are displayed in situations where they are in the public view, for example, near Post Office Counters, the responsible officer is requested to examine the possibility of altering the arrangement so that the instrument is converted to a regular table model, or replaced with one of the new type 233MW mentioned herein.

15. Some telephones Type 233MW have been delivered with a circuit diagram fixed inside the instrument which does not show the wire connecting the frame of the generator to the break shunt spring and the L1 terminal of the telephone. As opportunity permits, this omission should be noted on your records and on diagrams inside telephones.

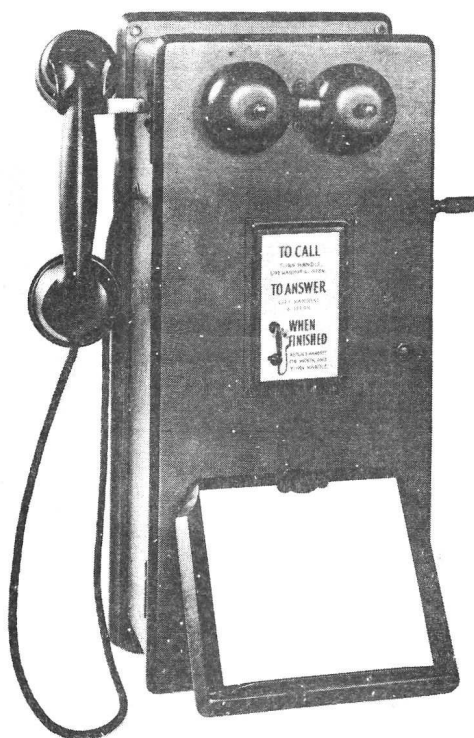
16. Some of the early deliveries of telephones 233MW (Stromberg Carlson) had the following defects:-

- (a) E.B. terminals were so placed on the back of the telephone as to involve risk of the 1 pair cable sheath touching the terminals and thus earthing the telephone circuit.
- (b) Washers under Line 1 and Line 2 terminal screws were unsatisfactory or missing.

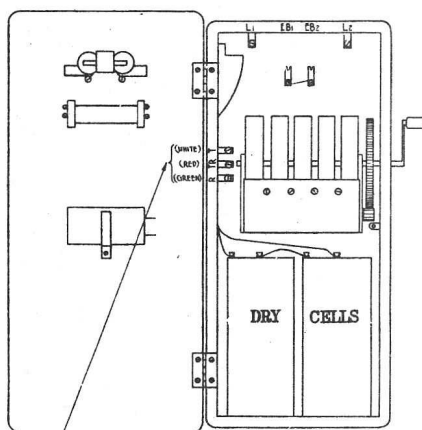
Any telephone containing these defects should be treated as follows -

- (a) Strip the lead sheath from the cable so that lead does not project into the telephone.
- (b) The wires must be terminated so that they are not pushed from under the head of the screw when it is tightened.

17. The paper clip for these instruments is shown on Drawing C.E.48 and has been listed under Item 61 of Serial 15. The clip may be requisitioned to replace broken ones and supplies are available for repairing telephones in the Departmental Workshops in each State.



TELEPHONE 233 MW (STROMBERG CARLSON HANDSET TYPE).

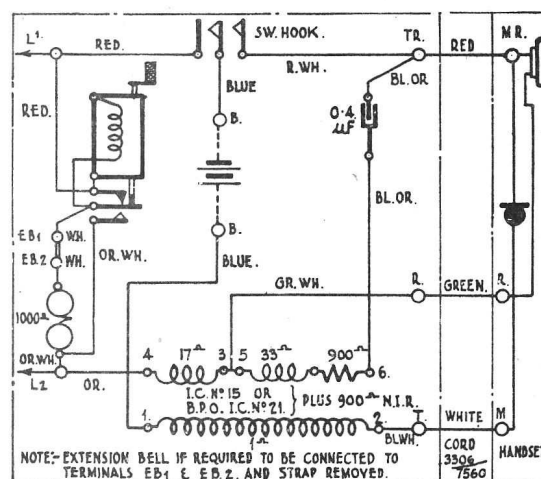


VIEW OF TELEPHONE WITH DOOR OPEN.

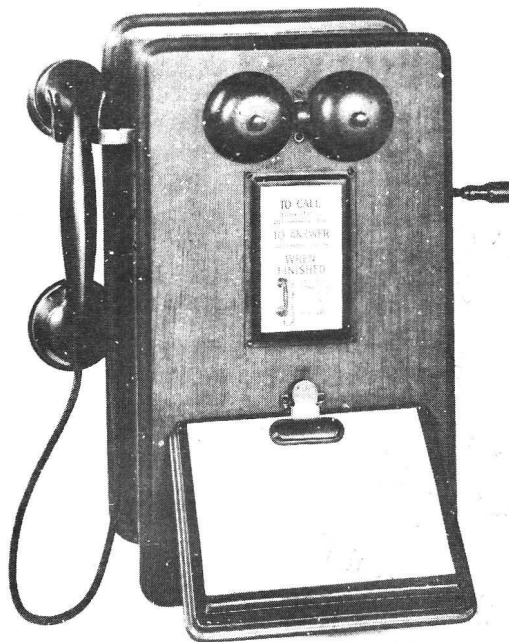
Note: TO FIT A NEW HANDSET: UNSCREW OLD CORD FROM THESE THREE SCREWS AND CONNECT NEW CORD IN THE SAME WAY.

CONNECT WHITE TO TOP SCREW WHICH IS MARKED T.  
CONNECT RED TO MIDDLE SCREW WHICH IS MARKED TR.  
CONNECT GREEN TO BOTTOM SCREW WHICH IS MARKED R.

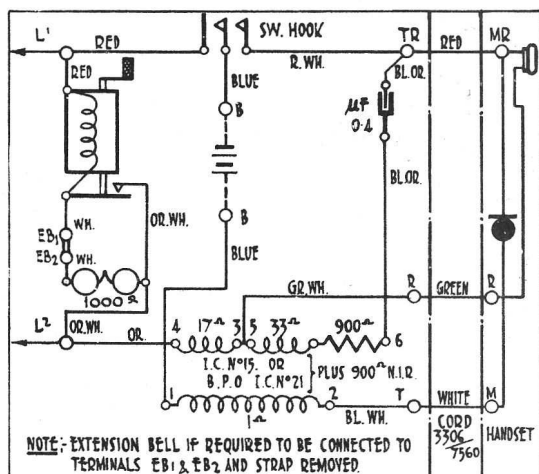
WHEN FITTING NEW DRY CELLS CONNECT THEM AS SHOWN IN DIAGRAM.



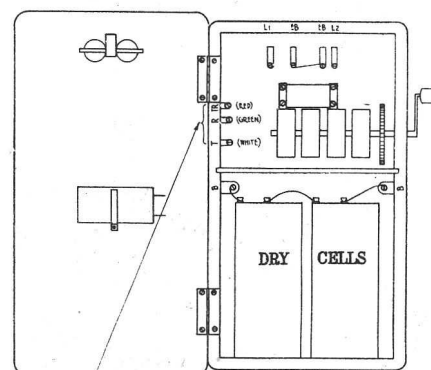
CIRCUIT OF TELEPHONE 233 M.W.  
(STROMBERG CARLSON TYPE)



TELEPHONE 235 MW (BRITISH ERICSSON HANDSET TYPE).



CIRCUIT OF TELEPHONE 235 M.W.  
(BRITISH ERICSSON TYPE)



VIEW OF TELEPHONE WITH DOOR OPEN.

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