

P.O. ENGINEERING DEPT.  
ENGINEERING INSTRUCTIONS

TELEPHONES  
CALL OFFICES  
A 4003

**POSTPAYMENT COIN-BOX INSTALLATIONS**  
**Public Call-Offices and Subscribers' D.E.L. Circuits**  
**Circuit Description**

★1. **General.**—This Instruction describes the circuit operation of postpayment coin-box installations in C.B.S. and magneto areas. For details of equipment and diagram numbers see D 3001 and D 3002. The description which follows refers to Dgms. N 2410 for C.B.S. No. 1 areas and N 2409 for C.B.S. No. 2, C.B.S. No. 3 and magneto areas.

Adjustments for the postpayment coin-box are detailed in D 5001.

2. **Outgoing calls.**—In C.B.S. areas, the exchange is called by lifting the handset, a loop being extended to the exchange via L1, the 17-ohm winding of the induction coil, gravity-switch springs 6 and 5, and the 1-ohm and 33-ohm windings of the induction coil to L2. In magneto areas, it is necessary to operate the hand generator to call the exchange, the A-line of the telephone circuit being disconnected whilst the generator is being operated.

3. **Called subscriber answers.**—When the required number has been obtained, the caller is requested to insert the necessary money in the coin-box.

★4. **Insertion of coins.**—The insertion of a coin in the coin slot operates the coin bar which winds up the escapement mechanism and operates the change-over spring-set. This spring-set removes the short-circuit from the coin-box transmitter and places a short-circuit across the telephone transmitter. The escapement mechanism takes two seconds to restore and, during this period, maintains the spring-set in an

operated position. This period is sufficient to allow the coins to fall and strike the appropriate gong, enabling the operator to check the coins deposited.

5. **Ineffective calls.**—If the called subscriber is unobtainable, the operator advises the caller, who then clears.

6. **Clearing signal.**

(a) **C.B.S. areas.** At the termination of a call in C.B.S. areas, a clearing signal is given to the exchange when the subscriber replaces the handset. In C.B.S. No. 1 areas, an earth is extended to L1 via the 250-ohm coils of the bell, gravity-switch springs 7 and 6, and the 17-ohm winding of the induction coil. In C.B.S. Nos. 2 and 3 areas, the circuit to the exchange is disconnected when the caller clears.

(b) **Magneto areas.** At the termination of a call in magneto areas, a clearing signal is given to the exchange when the caller replaces the handset and operates the hand generator.

★7. **Incoming Calls**

In C.B.S. No. 1 areas ringing is received on the A-line and passes via the 17-ohm winding of the induction coil, gravity springs 6 and 7, and the bell to earth.

In C.B.S. Nos. 2, 3 and magneto areas ringing is received on the A-line and passes via the capacitor and the bell to the B-line.

When the handset is raised the transmission circuit of the Telephone No. 196 is established.

References:—D 3001, D 3002, D 5001  
(S1)

END

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