

★**COIN-COLLECTING BOX INSTALLATIONS (PRE-PAY-ON-ANSWER WORKING)**

Apparatus for Use in Public Call Offices and at Subscribers' Coin-Box Installations

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★2. **Scope of Instruction.**—This Instruction describes the various types of call-office equipment in current use for the following systems and conditions :—

- (a) Automatic (including U.A.X.) exchange areas
- (b) C.B. manual exchange areas
- (c) C.B.S. and magneto exchange areas
- (d) Over radio links working into (a) or (b)
- (e) Exchange conversions.

The relative diagrams for various systems and conditions are detailed in the index of N diagrams and installation instructions are contained in D 3003.

3. **Standard types of coin-collecting box.**—Basically, two types of coin-collecting box are available: prepayment and postpayment.

(a) *Prepayment types (par. 4)* are used in automatic exchange and C.B. manual exchange areas. In automatic exchange areas, the insertion of the unit-call fee prepares the circuit for dialling operations. In C.B. manual exchange areas, the insertion of the unit-call fee causes the exchange calling signal to operate. In the former case, the telephone transmitter is rendered inoperative and in the latter, is put under the operator's control. In both cases, the receiver is shunted to make it less effective as a transmitter and a tone transmitter is brought into circuit so that, on operator-controlled calls, the operator can listen for the insertion of additional coins. 'A' and 'B' buttons are provided and operation of either will restore the normal transmitting and receiving conditions. Additionally, the operation of the 'A' button deposits the coins in the cash box, while operation of the 'B' button disconnects the line for 5 to 7 seconds and causes all coins to be returned to the caller.

(b) *Postpayment types (par. 5).*—These are used in C.B.S. and magneto exchange areas. They are designed to give tone signals to the exchange operator when coins are inserted and to render the telephone transmitter inoperative during this period. The coins are not inserted until the operator demands them and a suitable notice is provided to this effect.

'A' and 'B' buttons are not fitted on this type of coin-box but a refund chute is provided so that coins which are rejected by the coin gauges are returned to the caller.

Prepayment and postpayment boxes are available for use at public and subscribers' premises. Those suitable for use in public call-office installations have a cash compartment and a flush-fitting side lock; those for subscribers' premises have a cash drawer, the key of which is supplied to the subscriber by the T.M. (Clerical Divn.).

4. **Details of prepayment types of multi-coin box.**—Particulars of these will be found in the Rate Book and only a brief description of the main features and use of each type is given here. Box, Coin-collecting, No. 14..., complete is used in automatic exchange and C.B. manual exchange areas. Normally, unless special instructions are received, Box, Coin-collecting, No. 14D, complete should be requisitioned and fitted in public call offices and Box, Coin-collecting, No. 14E, complete should be requisitioned and fitted at subscribers' coin-box installations.

Box, Coin-collecting, No. 14G, complete is fitted only at public call offices where difficulties have been experienced due to obstructions being placed in the refund chute. It includes a Box, C.C. Part: Container No. 16A which has a glazed refund tray and requires a special front (Box, C.C. Part: Front, No. 8). In other respects, this coin box is similar to Box, Coin-collecting, No. 14D, complete and the method of assembling and fitting the various parts is similar.

The appropriate bell-sets, which must be requisitioned separately, are described in par. 7.

5. **Details of postpayment types of multi-coin box.**—Particulars of these will be found in the Rate Book and, therefore, only a brief description of the main features and use of each item is given here. Box, Coin-collecting, No. 16..., complete is fitted in public call offices and subscribers' coin-box installations in C.B.S. and magneto exchange areas. These items are provided with a plain black front (Box, C.C., Front, No. 2) containing a refund cup.

Box, Coin-collecting, No. 16B, complete is fitted at public call offices and comprises Box, C.C., Part: Container, No. 8A, Box, C.C., Part: Front, No. 2 and Box, C.C., Part: Mechanism, No. 16. As this mechanism occupies less space in the Container No. 8A than Mechanism No. 14, a Box, C.C., Part: Chute, No. 1 is provided. This is an enclosed channel, forming an extension to the money funnel, through which coins are directed, via the money funnel, into the cash compartment. A Box, C.C., Part: Adapter, No. 1 is also provided in order to close the 'B' button aperture

(not required) in the side of the Container No. 8A and to act as the lower hinge support for Mechanism No. 16.

Box, Coin-collecting, No. 16C, complete is the type fitted on subscribers' coin-box installations. The container is Box, C.C., Part: Container, No. 10A, designed to take the cash drawer Box, C.C., Part: Tray, No. 1. The chute extension, adapter and mechanism provided are as described for Box, C.C., No. 16B, complete.

Bell-sets, which must be requisitioned separately, are described in par. 7.

6. Variations on standard types of coin-collecting box

(a) *Box, Coin-collecting, No. 17A, complete* is a prepayment type equipped with a special latch-in multi-way plug and socket so that, when the mechanism is swung out for inspection, test or adjustment, the electrical circuit remains continuous. Apart from the association of this latch-in plug with the mechanism (and the need for a bell-set equipped with the corresponding latch-in socket, i.e. a Bell-set No. 42), there are no other differences between this coin-box and Box, Coin-collecting, 14D, complete. The mechanism, equipped with the latch-in plug, is coded Box, C.C., Part: Mechanism, No. 17. These are at present on field trial and should not be requisitioned until they appear in the Rate Book.

(b) *Box, C.C., Part: Mechanism, No. 18* differs from a Box, C.C., Mechanism, No. 14 only in that the sixpenny runway is designed to reject American and Canadian one cent pieces. It is available for use at the T.M.'s discretion; because of its extra cost, it must not be used indiscriminately.

(c) *Box, C.C., Part: Adapter, No. 2* consists of a mild-steel plate with turned-down side and end flanges which act as guides. It has a coin aperture to coincide with the aperture in the centre platform of Box, C.C., Part: Container, No. 8A. It is used with a Box, C.C., Part: Container, No. 8A or Container, No. 16A to enable a Container, Cash, No. 2 to be fitted. In the case of a Box, C.C., Part: Container, No. 8A, Mark I or Box, C.C., Part: Container, No. 16A, Mark I, the procedure is as follows:—

The spreader bar and bracket, and the scraper plate, are removed from the cash compartment. The existing money funnel is removed from the mechanism compartment, and Box, C.C., Part: Money Funnel, No. 1 fitted. The adapter is secured by two special screws (supplied with the adapter) to the right-hand side of the cash compartment, using the lower two holes left by removal of the scraper plate.

The rear trapped screws on top of the adapter function as two of the fixing bolts for the Box, C.C., Part: Money Funnel, No. 1. The front fixing is effected by using the two round-head unslotted No.

4BA screws and nuts supplied with the money funnel. Finally, all screws are tightened securely. In the case of a Box, C.C., Part: Container, No. 8A, Mark II or Container, No. 16A, Mark II, the Box, C.C., Part: Money Funnel, No. 1 is already in place and no spreader bar or scraper plate is fitted, otherwise the fitting procedure is as above.

(d) *Box, C.C., Part: Money Funnel, No. 1* differs from the money funnel fitted in Box, C.C., Part: Container, No. 8A, Mk. I in that it is sloped at the back to reduce the money aperture to the same size as that provided in the Container, Cash, No. 2.

(e) *Container, Cash, No. 2* is a metal box which automatically seals itself when it is removed by a coin collector from the cash compartment of a Box, C.C., Part: Container, No. 8 or Container, No. 16 equipped with a Box, C.C., Part: Adapter No. 2. It is not supplied with Box, Coin-collecting No. 14, complete and must be requisitioned only by the T.M. (Clerical Divn.) or by the Head Postmaster, in accordance with Tp.S.I. G3 XV 8-15. It is not to be held by engineering staff, but only by the coin-collecting organization.

(f) *Box, C.C., Part: Scraper, No. 1* is a scraper plate for fitting into a Box, C.C., Part: Container, No. 8A, Mark II or Container, No. 16A, Mark II, when these are to be used without a Container, Cash, No. 2. It has three captive screws and is fitted into the right-hand side of the cash compartment of the container by screwing these screws into the holes there provided. The captive washers are not removed and act as spacers between the scraper plate and the side of the container.

7. Bell-sets.—Bell-sets now fit into the mechanism compartments of all standard coin-boxes (*NOTE:—*Where Boxes, Coin-collecting, No. 16 or No. 16A complete are still in use, an external bell-set—Bell-set No. 31—will be required). The bell-set components are assembled on to a metal base-plate, having slotted holes which permit the bell-set to be fixed, by means of the screws provided, in the back of the coin-collecting box mechanism compartment. The correct bell-set for any particular installation can be readily ascertained from Table 1. The individual items included in each of the bell-sets are shown on the relative diagrams and are also detailed against the respective entries in the Rate Book.

(a) *Method of mounting Bell-sets Nos. 33, 34, 35 and 36 in coin-collecting box.* The mounting plate on each of these bell-sets is provided with three keyhole slots, so positioned as to register with three tapped holes in the back of the coin-box mechanism compartment. The fixing screws are provided with each bell-set. To fix the bell-set the three screws should be secured by a few turns only into their respective holes, the bell-set then hung over the screws by the three keyhole slots, the plate being behind the head of the screws and the weight of the bell-set resting on the bottom shelf of the mechanism

TABLE 1

Exchange system	Rate Book title of bell-set	Used in association with—		Bell-set (Dgm. No.)
		Box, Coin-collecting	Telephone	
Magneto	Bell-set No. 34	No. 16...., complete	No. 196	N 534
Automatic (except U.A.X.s Nos. 5 & 6)	Bell-set No. 33	No. 14...., complete	No. 238	N 533
C.B.S. Nos. 1, 2, 3 . .	Bell-set No. 34	No. 16...., complete	No. 196	N 534
C.B. manual	Bell-set No. 35	No. 14...., complete	No. 238	N 535
U.A.X.s Nos. 5 & 6 . .	Bell-set No. 36	No. 14...., complete	No. 242	N 536
Radio links to— (a) U.A.X. or auto. (b) C.B. manual	Bell-set No. 43	No. 14...., complete	No. 196, Modified	N 543

compartment. The weight of the bell-sets must not be supported solely by the three screws. The screws should then be tightened up securely.

(b) *Accurate location of the plug on the mechanism with the jack on the bell-set* (except when latch-in type plugs and sockets are fitted) can be achieved on Bell-sets Nos. 33, 35 and 36, i.e. those used with the prepayment mechanism, by making the following adjustments after the bell-set has been securely fitted in the mechanism compartment of the coin-box. Before fitting Box, C.C., Part: Mechanism, No. 14 into position, slacken off the two screws securing the plug-mounting bracket to the front plate of the mechanism. The plug is now free and, when the mechanism is fitted and swung into the coin-collecting box, it should be possible to accurately register the plug with the jack on the bell-set. When this has been done, the plug should be secured firmly in position by tightening up the two fixing screws previously loosened. Where latch-in plug and socket connexions are provided, e.g. Box, C.C., Part: Mechanism, No. 17 and Bell-set No. 42, the plug must be carefully but firmly pressed home into the socket until it is latched. To remove the plug from the socket, insert a screwdriver blade into the hole provided and with the flat of the blade press against the latch until the plug is unlatched and further movement of the blade causes the plug to part from the socket.

(c) *Bell-set No. 31*, used in magneto exchange areas, cannot be fitted inside the coin box. It is mounted on the wallboard in the position shown in Dgm. EC 1586 for cabinets and EC 1582 for Kiosk No. 6 (see D 3003).

(d) *Bell-set No. 34*, used in association with the postpayment mechanism (Box, C.C., Part: Mechanism, No. 16), is connected to the latter by

means of a short length of P.V.C.-covered wire, sufficient length being allowed for the mechanism to be swung out of the container for maintenance attention.

(e) *Bell-set No. 35* has provision for mounting additional Resistors, Coil, No. 12 which are required when this type of bell-set is fitted in a public call office requiring 'Emergency Call' facilities. Two screws are provided with the bell-set for fixing the additional resistors and the necessary wiring for connecting them is included in the wiring form. The ends of these wires are protected with insulating tape and tied back. The resistance values of the Resistors, Coil, No. 12 required are shown in Dgm. N 2406.

(f) *Bell-set No. 40* is fitted temporarily in a coin-collecting box for use during the conversion of a C.B. exchange to automatic working when conversion of the coin-collecting box installations cannot be made in advance of the main transfer (A 3110).

(g) *Bell-set No. 42* is similar to Bell-set No. 33, except that it is equipped with a latch-in type of socket for use with Mechanism, No. 17 in Box, Coin-collecting, No. 17A, complete.

8. Telephones and cords.

(a) *Public call offices.*—The present standard handset cord for public call offices is Cord, Instrument, No. 3/99BN, 26 in. Trials are in progress on improved types of cords, and the Rate Book should be consulted before ordering handset cords.

(b) *Subscribers' call office installations.*—The handset cord is Cord, Instrument, No. 3/63A, Brown, 42 in.

(c) *Telephones and telephone cords* required for public and subscribers' installations are shown in Table 2.

★TABLE 2

System	Telephone	Telephone cord		
		Public box	Subr.'s installations	
			Fitted to wallboard	Table mounted
Magneto C.B.S. No. 1 C.B.S. No. 2 C.B.S. No. 3	No. 196, Black, Minus cord	Cord, Inst., No. 6/25M, 30 in.	Cord, Inst., No. 6/21B, Brown, 54 in. (Unless Bkt., Tele., No. 14 is used, when Cord, Inst., No. 6/29M9 is required)	Cord, Inst., No. 6/21B, Brown, 54 in. or 72 in., as required
★C.B.	No. 238, Black, Minus cord	Cord, Inst., No. 6/25M, 30 in.	Cord, Inst., No. 6/21B, Brown, 30 in.	Cord, Inst., No. 6/21B, Brown, 54 in. or 72 in., as required
U.A.X. Nos. 5 & 6	No. 242, Black	Cord, Inst., No. 8/05M, 30 in.	Cord, Inst., No. 8/06B, Brown, 30 in.	Cord, Inst., No. 8/06B, Brown, 54 in. or 72 in., as required
Auto., other than U.A.X.s Nos. 5 & 6	No. 238, Black, Minus cord	Cord, Inst., No. 8/05M, 30 in.	Cord, Inst., No. 8/06B, Brown, 30 in.	Cord, Inst., No. 8/06B, Brown, 54 in. or 72 in., as required
Radio link to manual or auto. exchs.	No. 196, Black, Minus cord. Modified (N 2420)	Cord, Inst., No. 6/25M, 30 in.	Cord, Inst., No. 6/21, Brown, 54 in.	Cord, Inst., No. 6/21B, Brown, 54 in. or 72 in., as required
		For auto. working, the dial cord is Cord, Instrument, No. 6/13E, 8 in.		

★9. Dials.—Dials, Automatic, No. 13 or No. 20 LA are used. Stations, A 3118 describes the circumstances in which each is fitted.

10. Bases for Telephones Nos. 196, 238 and 242. The bases used for these telephones are set out in Table 3.

TABLE 3

Telephone No.	Public call offices	Subrs.' premises		
		Free standing	Bkt., Tele., No. 12	Bkt., Tele., No. 14
196 in magneto areas	Part No. 1/SBA/2 (Bkt., Tele., No. 12)	Base, Tele., No. 1/162, Blk.	Part No. 1/SBA/2	Base, Tele., No. 1/162, Blk. Note:—Cord, Inst., No. 6/29M, 9 in. is required
196 in C.B.S. areas	Part No. 1/SBA/1	" "	" "	
238	Part No. 1/SBA/1	Base, Tele., No. 1/162, Blk.	Part No. 1/SBA/2	Not suitable
242	Part No. 1/SBA/1	Base, Tele., No. 1/162, Blk.	Part No. 1/SBA/2	Not suitable

11. Radio links.—The appropriate equipment giving prepayment or postpayment facilities, as required, and provided with a L.B. telephone, is shown in Tables 1 and 2. For postpayment working, a Box, C.C., Part: Label, No. 306 should be fitted, as described in A 3006.

12. Locks and keys for coin-collecting box fronts

References :—A 3006, A 3110, D 3003, D 3005, D 3902
(S1/2) Stations, A 3118

and cash compartments.—The provision and safeguarding of locks and keys is described in D 3005.

13. Fitting of Locks No. 15 to Containers, Cash, No. 2.—D 3902 describes the fitting of these locks, which are in all other respects a Chief Clerk's or Head Postmaster's responsibility.

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