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

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

1. Contents

★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 keyholes 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.
196 in C.B.S. areas	Part No. 1/SBA/1	,,	,,	*Note:*—Cord, Inst., No. 6/29M, 9 in. is required
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 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.

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

END

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DIAGRAMS FOR PUBLIC CALL-OFFICES AND SUBSCRIBERS' COIN-BOX INSTALLATIONS

★[*NOTE.—As this Instruction has been completely revised, individual items have not been "starred"*]

1. General.—This Instruction lists in Tables 1, 2 and 3 the diagrams in current use. Details of the apparatus are given in D 3001 and installation instructions in D 3003. In the case of extension plans, the principle to be observed is to fit a coin-box at every station from which the exchange can be called. For example, on magneto and C.B.S. systems, a coin-box should be fitted at all stations and, on auto. systems, a coin-box should be fitted wherever the telephone is provided with a dial.

2. Existing installations wired to obsolete diagrams.—As opportunity offers, existing installations wired to obsolete diagrams should be converted to the appropriate standard diagram, since they will normally include obsolete equipment and will, therefore, be difficult to maintain. All installation diagrams, other than those listed in this E.I., have been cancelled, and are now unobtainable.

TABLE 1—PUBLIC CALL OFFICES USING COIN-COLLECTING BOXES

(*For Facilities, see A 3001*)

Type of Circuit	Call Office Plan No.	'N' Diagram					
		Auto.		C.B.	C.B.S. No. 1	C.B.S. Nos. 2 & 3	Magneto
		Except U.A.X.s Nos. 5 & 6	U.A.X.s Nos. 5 & 6				
D.E.L.	5A	2408	2407	2406	2410	2409	2409 (2403)
Telegram cct. and kiosk	5E	2448 2408† 4300†	2448 (2598) 2407† 4300†	2523 2406† 4300†	2401 2410† 1296†	2402 2409† 1297†	2404 2409†(2403) 1297†
Telegram cct. and cabinet	5F	2412 2408† 4300†	2412 2407† 4300†	2412 2406† 4300†	2655 2410† 1296†	2705 2409† 1297†	2755 2409†(2403) 1297†
Conversion C.B. to Auto. (except U.A.X. Nos. 5 & 6)	5A	2413	—	2413	—	—	—
Postpayment on C.B. converted from C.B.S. pending auto. conversion	5A	—	—	2419	—	2419	—

Note 1:— Diagrams marked † are required in addition to the main Diagram.

Note 2:— Diagrams shown in brackets are still available for maintenance purposes.

TABLE 2—PUBLIC CALL OFFICES WITHOUT COIN-COLLECTING BOXES
(For Facilities, see A 3001)

Call Office Plan No.	'N' Diagram					
	Auto.		C.B.	C.B.S. No. 1	C.B.S. Nos. 2 & 3	Magneto
	Except U.A.X.s Nos. 5 & 6	U.A.X.s Nos. 5 & 6				
1A	—	—	3801	3700	3700	3700
2A	4300	4300	4300	1296	1297	1297
2C	2417 (2418)	2417 (2418)	2417 (2493)	2635	2685	2411
2G	2415	—	—	—	—	—

Note.—Diagrams shown in brackets are still available for maintenance purposes.

TABLE 3—STANDARD SUBSCRIBERS' INSTALLATIONS WITH COIN-COLLECTING BOXES
(See A 3002)

Type of Circuit	'N' Diagram					
	Auto.		C.B.	C.B.S. No. 1	C.B.S. Nos. 2& 3	Magneto
	Except U.A.X.s Nos. 5 & 6	U.A.X.s Nos. 5 & 6				
D.E.L.	2408	2407	2406	2410	2409	2409 (2403)
Extn. Plan 1	4225	4245	4265	4075	4125	4025
Extn. Plan 1A	4226	4246	4266	4076	4126	4026
Extn. Plan 1B	4227	4247	4267	4077	4127	4027
Extn. Plan 3	4228	—	4268	—	—	—
Extn. Plan 5	4234	—	—	—	—	—
Extn. Plan 7 & 7A	4235	—	4275	4085	4135	4035
Conversion C.B. to Auto (D.E.L.)	2413		2413			
Postpayment on C.B. converted from C.B.S. pending auto. conversion			2419		2419	
P.A.B.X. & C.B. P.M.B.X. extns.	979	979	979	979	979	979
C.B.S. cordless swbd. extns.				2405	2409	—
Magneto P.M.B.X. extns.						2409 (2403)

Note 1:— Diagrams shown in brackets are still available for maintenance purposes.

Note 2:— If an extension plan, other than those listed, has to be provided with coin-collecting boxes, the principle detailed in par. 1 must be followed. The case should be treated in the same way as non-standard facility requests (see Stations, A 3901).

3. Other diagrams applicable to coin-box circuits (wiring of mechanisms, bell-sets, etc.) are detailed in the "Index of 'N' Diagrams" which should be consulted as necessary.

References:—A 3001, A 3002, D 3001, D 3003
(S1/3) Stations, A 3901

END

(SO 9046) Wt. 8150—18335 4125 11/55 H & S Ltd. Gp. 574

CALL OFFICES AND SUBSCRIBERS' COIN-BOX INSTALLATION (PRE-PAY-ON-ANSWER WORKING)

Installation of Wallboards and Associated Equipment

★[*NOTE: As this Instruction has been completely revised individual paragraphs have not been 'starred'*]

1. Scope of Instruction.—This Instruction describes the installation of wallboards and associated equipment in Kiosks Nos. 1, 2, 3, 4 and 6, cabinets, recessed call offices, and subscribers' premises. The equipment used is described in D 3001.

2. Types of wallboard.—Table 1 lists the wallboards described in this Instruction and the circumstances in which they are used. Typical wallboards are illustrated in Figs. 1–3.

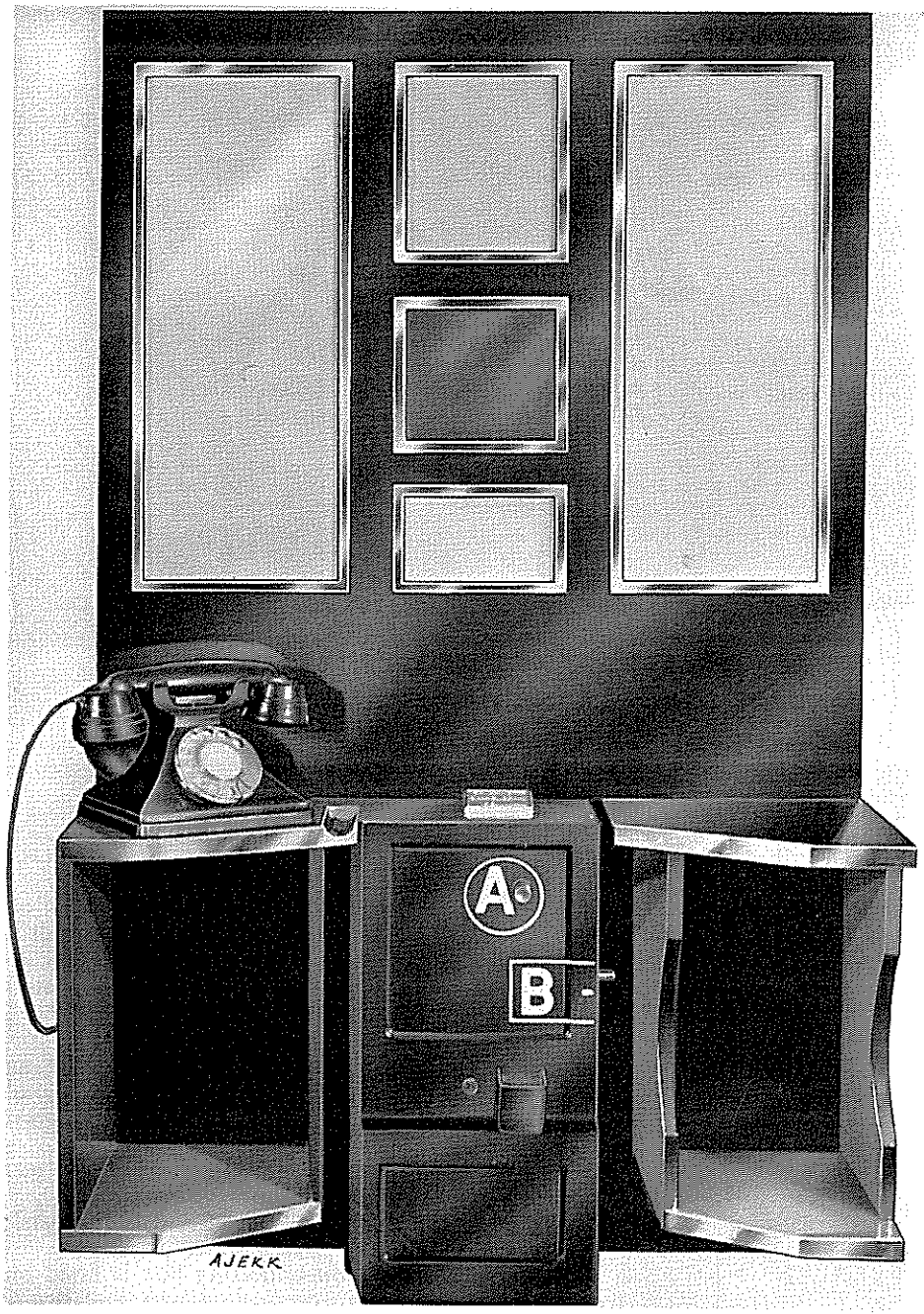

FIG. 1

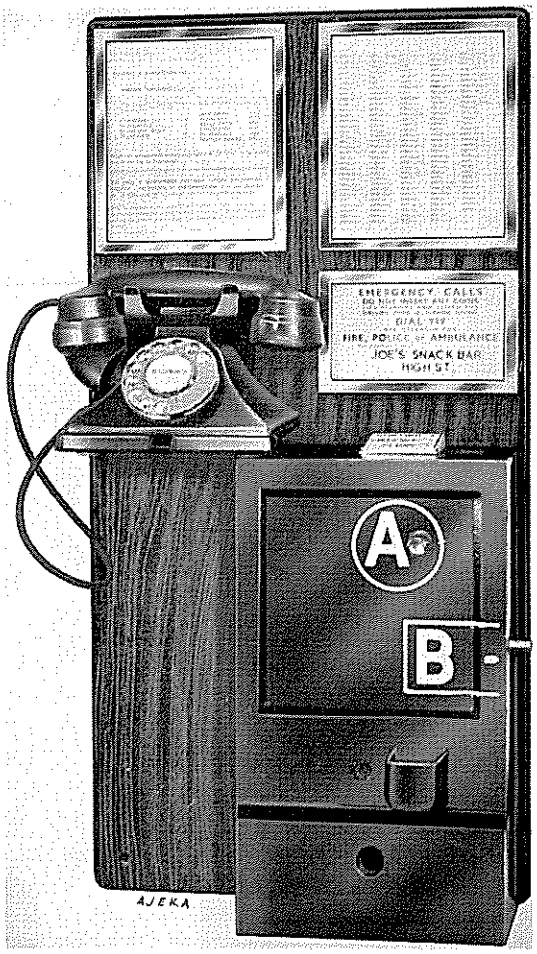

FIG. 2

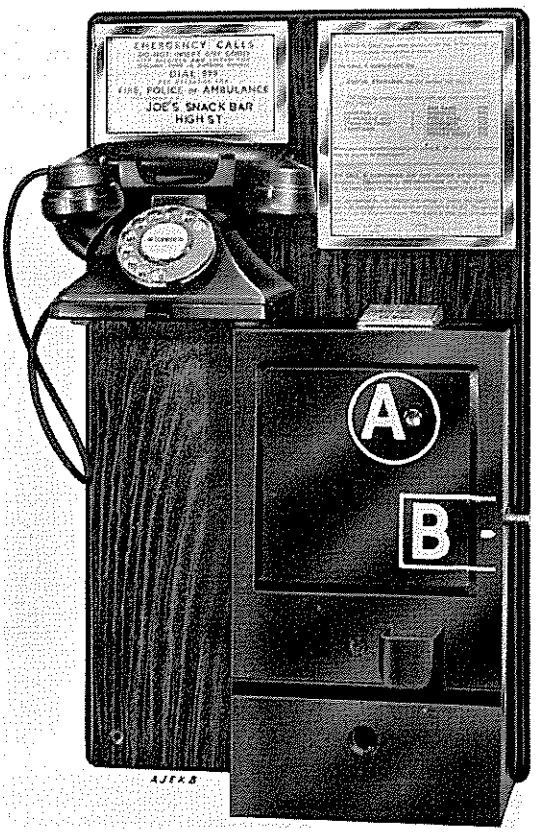

FIG. 3

TABLE 1

Wallboard	Described in pars.	Illustrated by Fig. No.	Use of wallboard
D 1/60577	3–11	1	Upper wallboard for public call offices in all areas
D 2/60577	12–22 30	1	Lower wallboard for auto., C.B. and C.B.S. areas; also used in Plan 2G installations in magneto areas
D 1/63747 and D 2/63747	23	—	Generally similar to D 1 and D 2/60577 but 2 ft. 2 in. wide Used in narrow cabinets in all areas except magneto
D 90650	24–27	2	For use in subscribers' premises in the London director area and its fringe charging group where three notice frames are required
D 90651	28	3	For use in subscribers' premises (except in magneto areas) where two notice frames are required
Wallboard ...in. × ...in.	29 and 31	—	For use in public call offices and subscribers' premises in magneto areas
Backboards No. 1	32	—	Used where a coin-collecting box is fitted on a table or desk

WALLBOARD D 1/60577 AND ASSOCIATED ITEMS

3. This wallboard comprising the upper half of a complete wallboard assembly includes two Frames, Notice, No. 29, a Frame, Notice, No. 30 and a Frame, Notice, No. 31. Glasses No. 49 for use with the Frames, Notice, No. 29 must be requisitioned separately but the other glasses are supplied with the wallboard. The wallboard should be fitted after the lower wallboard is in position, care being taken to ensure that the tongue and groove is clean so that a close fit is obtained.

4. Fitting in Kiosk No. 6.—The wallboard is secured to four bosses on the back panel by screws supplied with the kiosk.

5. Fitting in Kiosks Nos. 1, 2, 3 and 4.—The wallboard is screwed to wooden battens on the back panel by Screws for Wood, Iron Blued Rd. Hd., 1¼ in., Size 14. In Kiosk Nos. 1 and 3 the battens are supplied with the kiosk. In Kiosks Nos. 2 and 4 Battens, Wallboard, D 60577, which include the necessary fixing screws, should be secured to bosses on the back panel.

6. Fitting in cabinets and recessed call offices.—The wallboard is fitted to wooden battens (4 ft. 0 in. × 3 in. × 1 in.) which must first be secured to the back panel by four Screws for Wood, Iron Blued Rd. Hd., 1¼ in., Size 14. The battens should be mounted vertically at 23½ in. centres with their lower ends 2 ft. 4 in. from the floor level. (For alternative positions in recessed call offices see Drg. ES 5686.)

7. Instruction cards and notices.—The various instruction cards and notices are described in A 3006.

8. Frames, Notice, Nos. 29, 30 and 31.—The notice frames are mounted on Brackets, Mounting, DQ... and DH..., which are secured horizontally to the wallboard by screws, one at the top and the other at the bottom level of the frame. The frame, the notice, covering glass and backing of pasteboard sheet are supported by the brackets. The top of the frame engages with the Bracket, Mounting, DQ... by means of two dowels, and is secured at the bottom by two tongues which engage with a spring clip in the Bracket, Mounting, DH... Removal and replacement of the frame is affected with a Key, Frame, Notice, No. 29 the use of which is described in D 5901.

9. Replacement of mirror.—For security against theft, the Frame, Mirror, No. 1 is provided with four mild-steel screws, welded to it, one at each corner. These screws pass through holes in the wallboard and are secured at the back by nuts and washers. To replace a broken mirror, it is necessary to remove these nuts and washers, withdraw the frame, fit the new mirror and then replace and secure the frame.

10. Emergency button.—[C.B. (manual) areas only]. A Label No. 231 and Press-button G, Brass, with Watertight Barrel will be provided in the Frame, Notice, No. 31, on the upper part of the wallboard. A suitable hole to take the barrel of the press-button and two ⅛ in. starting holes for the fixing screws are already drilled in the correct position in the wallboard. To conform to the general colour scheme of the layout, a cap with the Rate Book title Part No. 1/SCA/1 is fitted over the press-button to cover up the brass flange. Part No. 1/SCA/1 includes two Screws for Wood, Brass, Rd. Hd., ⅝ in., Size 4.

11. Method of securing the press-button, cap and emergency label.—Remove the Frame, Notice, No. 31 and recover the glass completely (the glass is not required where the emergency button is fitted). Label No. 231 should then be placed in position, and the press-button passed through the hole in the label and the corresponding hole in the wallboard. The cap should then be placed over the flange on the press-button and the whole secured by means of the two screws supplied with the cap. The frame should then be replaced.

WALLBOARD D 2/60577 AND ASSOCIATED ITEMS

12. This wallboard comprising the lower half of a complete assembly includes a Container No. 1 and a Container No. 2 for housing directories and parcels. It carries a coin-box container mounted centrally between them and a telephone on the top shelf of the left-hand container. Before the wallboard is secured the telephone should be fitted (see par. 15) and the telephone cord, line wires, and earth wire threaded through the hole provided. In Kiosks Nos. 2, 4 and 6 (Mk. 1) the precautions described in C 5905 should be taken where it is considered that damage may be caused by attempts at forcible removal of the coin box.

13. Fitting in Kiosks No. 6.—The wallboard is secured to four bosses on the kiosk back panel by screws supplied with the kiosk. In Kiosks No. 6 (Mk. 2) the coin box is secured to a further four bosses (see par. 16). An earth wire should already be bolted to the central boss (see C 3001).

14. Fitting in Kiosks Nos. 1, 2, 3, 4, cabinets and recessed call offices.—The wallboard should be secured to battens on the back panel by four Screws for Wood, Iron Blued Rd. Hd., 1¼ in., Size 14. When fitted, the top faces of the containers should be 3 ft. 8 in. from the floor. Pars. 5 and 6 describe the fitting of the battens.

15. Telephone.—The telephone is fitted to the top shelf of the left-hand container of the wallboard, in which seven holes are provided for the purpose. The type of telephone to be fitted is shown in D 3001. The telephone is supplied without the base and it is necessary to requisition one Part No. 1/SBA/1. This base should first be secured, by means of the four screws which are supplied with it. The body of the telephone should then be placed on the base and

secured by means of the two trapped screws in the base; access to these screws is gained through the two holes provided in the shelf. The telephone cord should be passed down through the remaining hole in the shelf, thence through the back panel of the wallboard inside the receptacle, along the back of the wallboard, and into the coin box through the hole in the back of the box.

* 15.1. new para. see page 4.1. 5.2.66.

16. The coin-box container.—In a Kiosk No. 6 (Mk. 2) the coin box is mounted on the wallboard in the following manner:—The $\frac{5}{16}$ in. × 2 in. grub-screw supplied with the kiosk should be screwed through the top left-hand coin-box fixing hole in the wallboard into the boss on the back panel and tightened, using a screwdriver (this grub-screw should have been left in position by the kiosk erection party). The container is then hung on the grub-screw while three $\frac{5}{16}$ in. bolts (Boxes C.C., Parts: Bolts No. 2A which are requisitioned separately) are screwed through the wallboard and tightened with a Spanner, Box, No. 5. The nuts and washers supplied with the bolts should be discarded, except for one nut and washer, which are used on the grub-screw, to complete the fixing of the container. An entry hole in the back of the coin box aligns with the hole in the wallboard through which the line and earth wires have been run. In other installations, except where precautions against forcible removal have been taken (see par. 12), the coin box should be bolted to the wallboard using the bolts requisitioned with the coin box before the wallboard is fitted. The bolts should be fitted with their heads on the coin-box side of the wallboard and tightened with a Spanner, Box, No. 5 and a Spanner, Box, No. 5A.

17. Box C.C., Parts: Lock No. 39.—A Lock No. 39 should be fitted to the mechanism compartment front. The position of the bolt-retaining bar should be carefully adjusted so that the lock operates smoothly. On early type boxes the bar is held by two screws, the heads of which are in the cash compartment; by slackening these screws the position of the bar can be adjusted, after which the screws should be fully tightened. On the later type coin boxes the bar is held by two screws having heads countersunk into the bar, and these should be slackened sufficiently to allow the bar to be adjusted and then be retightened. Excessive slackening should be avoided as this may cause the securing bar in the cash compartment to drop off. Before leaving an installation the fitter should satisfy himself that the cash compartment is secured by the lock provided. D 3005 describes the provision of locks and keys.

18. Bell-set and mechanism.—The appropriate bell-set (see D 3001) is mounted in the coin-box container as follows:—

The three fixing screws provided with each bell-set are temporarily secured by a few turns only into the holes provided in the back of the coin-box container. The three keyhole slots in the bell-set base plate are fitted over the screws, so that the slots are behind the heads of the screws and the weight of the bell-set is taken by the bottom of the mechanism compartments. The screws are then tightened. The telephone cord, line wires, and an earth wire should pass through the hooded hole provided in the centre of the bell-set base plate, and be connected in accordance with the appropriate diagram. *NOTE:*—The line wires must run directly to the bell-set, with no intermediate connecting point, except when a protector is necessary (see par. 21).

The mechanism is fitted by placing its hinge pins in the holes in the lugs on the right-hand side of the coin-box container. In prepayment types the plugs on the mechanism must be aligned with the jack on the bell-set. This is done by slackening the two screws securing the plug-mounting bracket to the mechanism, and by mating the plug points with the correct jacks as the mechanism is swung into the container. When the mechanism is fully home, the bracket-fixing screws are retightened; after this the plug should engage correctly whenever the mechanism is swung in.

It is necessary to connect an earth to the mechanism frame by running a wire between the earth tag on the spring-set assembly block to spring No. 8 or No. 11 of the spring-set. See the appropriate wiring diagram.

* 18.1. * new para. see page 4.1.

19. Batteries.—When a local battery telephone is to be provided, Cells, Leclanché, R40 should be fitted at the back of the left-hand container; the space available is insufficient to accommodate cells larger than type R40. The cells should be protected and hidden from view by a Partition D 60967 (see par. 20) which is secured to the container in front of the cells. Where only two cells are provided, they should stand vertically; where three cells are necessary, however, they should be placed on their sides one above the other. The cells should rest on the rubber mat supplied with Partition D 60967. A hole for leading-in the battery wires should be drilled in a suitable position in the back of the wallboard. (For this purpose, and whenever small holes need to be drilled in the wallboard locally, a twist drill will be found to be more satisfactory than a carpenter's bit.)

20. Partition D 60967.—This is a sheet of plywood 1 ft. $0\frac{7}{8}$ in. × $7\frac{5}{8}$ in. provided with clips, a black leather tab and a locking screw. Two metal angle strips (one of which has a tapped hole to engage the partition locking screw), the necessary fixing screws and a small rubber mat are also included.

The two metal angle strips should be screwed vertically one to each side of the container, the front edges of the strips each being $2\frac{3}{4}$ in. from the back edge of the side; the strip carrying the tapped hole which engages the locking screw should be fixed on the right, and the other strip on the left. The partition can then be placed in position with the clips engaging the left-hand metal strip, and secured by means of the locking screw. The black leather tab is provided to assist in the removal of the partition.

21. Protector.—When a protector is necessary, a Protector and Fuse No. $1\frac{2}{2}$ should be provided. It should be screwed to the wallboard inside the left-hand container with its length horizontal, touching the right-hand side of the container and with its uppermost edges as near as possible to, but not obscuring, the leading-in hole for the telephone cord. After the base of the protector has been screwed in position, three $\frac{1}{4}$ in. holes should be drilled through the wallboard for the entry of the two leads and earth wire, the respective holes in the base of the protector being used as a template (Dgm. EC 1851 refers). The protector should be hidden from view by a Partition, D 60967, fitted as described in par. 20.

NOTE:—A terminal block must *not* be inserted at the lead-in point, since this would facilitate those methods of fraud which require access to the line wires.

22. Directories.—The directories will normally be placed in the right-hand container. In London both containers may be used.

WALLBOARDS D 1/63747 AND D 2/63747

23. These wallboards are similar in layout to the D 1 and D 2/60577, including the same notice frames and Containers No. 3 and 4 but are 2 ft. 2 in. wide. Two 3 ft. 10 in. × 3 in. × 1 in. wooden battens should be fitted to the back panel of the cabinet. The wallboards should be fitted to the battens in the manner described in pars. 6 and 14. When securing the battens to the back panel care must be taken to ensure that when the wallboard is secured in its correct position the battens are completely hidden so as not to spoil the general appearance of the layout.

WALLBOARD D 90650 AND ASSOCIATED ITEMS

24. This wallboard for use in subscribers' premises is 15 in. wide and 30 in. high and includes two Frames, Notice, No. 30 for instruction cards and one Frame, Notice, No. 31 for the emergency notice.

All notice frames are complete with glass, pasteboard sheet and mounting brackets. The Frames, Notice, No. 30 are secured by a Bracket, Mounting, DH, $6\frac{1}{2}$ in. at the top and by a Bracket, Mounting, FC at the bottom. The lower bracket provides a 'snap off/on' action for the frame, to enable the subscriber to replace the instruction card as necessary. The frame may be removed by pulling the lower end clear of the bracket and then lifting the frame so that the lugs at the upper end are removed from the top bracket. Frames No. 30 which have this method of removal can be identified by the two holes which are visible in the top edge of the frame. The Frames, Notice, No. 31 are held by a Bracket, Mounting, DQ, $6\frac{1}{2}$ in. and Bracket, Mounting, DH, $6\frac{1}{2}$ in. They require a Key, Frame, Notice, No. 29 for the removal of the frame (see D 5901). The wallboards have an ebonized finish and are drilled for the cable holes, an emergency button (fitted in the manner described in par. 10), the fixing screws of a Bracket, Telephone, No. 12 (Screws for Wood, Steel Japanned Rd. Hd., $\frac{1}{2}$ in., Size 8) and three of the bolts for the coin-box container. The 4th bolt hole of the coin-box container coincides with one of the four holes provided for securing the wallboard to the wall. The top two fixing points are concealed behind the notice frames. Directory holders are not included in the wallboard.

25. Associated items.—The type of telephone and coin box to be used is given in D 3001. The remainder of the associated items are listed in Table 2.

TABLE 2

Item	When required
1 Bracket, Telephone, No. 12	Except when the telephone is to stand on a table
1 Part No. 1/SBA/2	When the telephone is fitted to a Bracket, Telephone, No. 12
1 Base, Telephone, No. 1/162, Black	When the telephone stands on a table
1 Box, Battery, No. 3 2 Cells, Leclanché, R40	In local battery installations
1 Press-button G, Brass with Waterproof Barrel 1 Labels No. 231 1 Part No. 1/SCA/1	In C.B. areas when emergency calling facilities are required

26. Fitting.—The wallboard should be secured to the wall by four Screws for Wood, Iron, 2½ in., Size 12 so that the top of the coin-box container is 3 ft. 8 in. from the floor level.

27. Protectors.—The protector must be fitted in the usual position near the point of entry of the lead-in, but it should be as inaccessible as possible to a user of the coin box, and it may be desirable, therefore, to select the point of entry with this requirement in mind.

WALLBOARD D 90651 AND ASSOCIATED ITEMS

28. This wallboard is 15 in. wide and 25¾ in. high and includes one Frame, Notice, No. 30 and one Frame, Notice, No. 31. It is otherwise similar to the Wallboard D 90650 and the instructions given in pars. 24–27 apply.

MISCELLANEOUS

29. Public call offices in magneto areas.—Apparatus wired to Dgm. N 2409 is standard for all public call offices in magneto areas. The layout should conform to the following diagrams:—

Kiosks Nos. 1 and 3	EC 1588
Kiosks Nos. 2 and 4	EC 1587
Kiosk No. 6	EC 1852
Cabinets	EC 1586

In a Kiosk No. 6 (Mk. 2) it will first be necessary to obtain locally two 3 ft. 10 in. × 3 in. × 1 in. planed wooden battens and secure them to the tapped bosses on the back panel of the kiosk. The bottom of both battens should be about 2 ft. from the floor; suitable screws for fixing the battens are supplied with the kiosk. The equipment should be mounted on a Wallboard, 48 in. × 29¾ in. as shown on Dgm. EC 1852. The completed wallboard equipment should be secured to the battens with six Screws for Wood of suitable size, in such a position that the bottom edge of the Bracket, Telephone, No. 12 is 4 ft. from the floor. The battery of two or three Cells Leclanché, R40 (according to requirements) should be housed in a Box, Battery, Leclanché, WK4, 2-cell, C.O. mounted on a Wallboard, 12 in. × 7 in. and secured to the back panel of the kiosk, as shown in Dgm. EC 1852. The four holes for securing the wallboard should be drilled be drilled and tapped ¼ in. Whitworth locally. The conduit carrying the telephone leads should be fitted with a tee piece behind this wallboard to accommodate the battery lead. If considered desirable, the method described in C 5905 for fitting the coin box should be adopted.

30. Plan 2G.—When a Plan 2G is installed in a kiosk, cabinet or recessed call office, Drg. EC 1851 should be followed, except that, due to the absence of a coin-collecting box, it will be necessary to bridge the gap between the two containers on the Wallboard D 2/60577. A Desk No. 19 is used for this purpose, and is fitted in the following manner:—

The desk is positioned with its top level with the upper face of the containers, and its back flush with the wallboard. It should be secured (using the screws provided), first to the side of the left-hand container, and then to the underside of the top of the right-hand container.

The Block, Terminal, No. 20/4 required with this arrangement should be fitted in the back of the left-hand container; the slack of the Cord, Instrument, No. 3/99BN, 26 in. should be pulled through into this container and protected by the Partition D 60967.

31. Subscribers' installations in magneto areas.—The equipment should be mounted on a Wallboard ... in. × ... in. The smallest size consistent with the necessary equipment being mounted neatly should be used. A desk should not be provided. The instructions regarding notices given in A 3006 should be followed.

32. Backboard No. 1.—The backboard which is bolted to the coin-collecting box is used to conceal the wiring taken into the back of the coin box.

33. Preparation of wallboards at a central depot.—Except in a Kiosk No. 6 (Mk. 2) it may be advantageous to mount the equipment on the wallboard and carry out wiring and testing at the local installation centre. Since a fully equipped lower wallboard for a public call office weighs approximately 65 lb. and is to be fitted in a confined space, a procedure for fixing them in position to suit local conditions which would avoid danger of injury to the staff must be specified by the responsible supervising officer.

ADJUSTMENTS AND TESTS TO BE APPLIED AFTER INSTALLATION

34. Accurate adjustment of the coin-box mechanism is essential for efficient operation and consequently the staff employed on this class of work should be familiar with this apparatus and this Instruction.

35. Minor repairs to apparatus.—The apparatus should normally be received in good condition and if minor adjustment or repair is necessary this may be done on site; otherwise the item should be changed for a good one and the defective item suitably labelled with a report of the fault should be returned to the Supplies Dept. or overhaul centre.

36. Coin-box tokens.—Tokens, Coin-box, No. 4 may be used for testing the coin-box mechanism. The serial number of each token deposited in a coin box must be recorded.

37. Use of 'temporary out of service' notice–T 431G.—If for any reason it is not possible to open a public call office for service immediately after the fitting work has been completed a notice T 431G should be exhibited and should be recovered when the installation is brought into service.

38. Postpayment coin-collecting box mechanisms.—The functional tests to be applied to confirm that the mechanism and telephone apparatus are in a satisfactory condition to put into service are detailed in

TESTS & INSPECTIONS, Routine, S 5206. Any adjustment necessary as a result of these tests should be made in accordance with D 5001.

39. Prepayment coin-collecting box mechanisms.—These mechanisms will be received from the Supplies Dept. in a partially-adjusted condition, i.e. the balance weight and the spring-set associated with the balance arm (Spring-set No. 2, Dgm. N 1167) will require to be adjusted locally. The adjustment to be made will depend upon whether the mechanism is to work in an automatic or a manual exchange area, as follows:—

(*a*) *Automatic area.* The lever spring is required to 'break' from the right-hand contact when the balance arm is operated. The method of adjustment is detailed in D 5001. Functional tests which should be applied after adjustment of the spring-set are described in TESTS & INSPECTIONS, Routine, S 5207.

(*b*) *Manual area.* The lever spring is required to 'make' with the left-hand contact when the balance arm is operated. The method of adjustment is detailed in D 5001. Functional tests to be applied after adjustment of the spring-set are described in TESTS & INSPECTIONS, Routine, S 5206.

40. Broken glass.—Any broken glasses in public call offices should be reported to the maintenance control and changed or made safe so that injury to members of the public is not possible.

References:—A 3006, C 3001, C 5905, D 3001, D 3005, D 5001, D 5901
(S1/2) TESTS & INSPECTIONS, Routine, S 5206, S 5207

END

Wt. 8205/46/30917 4,375 1/61 AR

CALL OFFICES AND SUBSCRIBERS' COIN-BOX INSTALLATIONS (PRE-PAY-ON-ANSWER WORKING)

Installation of Wallboards and Associated Equipment (Additional pars. 15.1 and 18.1)

15.1. Provide acoustic shock suppression by wiring two Rectifier-elements No. 101, in parallel but in reverse directions, across the receiver terminals in the transmitter compartment of the Telephone No. 164. The rectifiers should be suitably insulated to prevent contact with the transmitter.

18.1. Where a Bell-set No. 45 is used, disconnect and insulate the wires from the two Rectifier-elements No. 101 mounted on the bell-set.

[The main Instruction should be suitably annotated pending reissue]

CALL OFFICES AND SUBSCRIBERS' COIN-BOX INSTALLATIONS (PAY-ON-ANSWER WORKING)

Installation

1. Scope of Instruction.—This Instruction describes the installation of pay-on-answer coin boxes and associated equipment in Kiosks Nos. 1, 2, 3, 4 and 6, cabinets, recessed call offices, and subscribers' premises. The equipment used is described in D 1001.

CALL OFFICE INSTALLATIONS

2. Types of wallboard.—Table 1 lists the wallboards described in this Instruction and the circumstances in which they are used. Typical wallboards are illustrated in Figs. 1, 2, 3 and 4.

3. Wallboard D 1/60577.—This wallboard comprises the upper half of a complete wallboard assembly. The fitting instructions and a description of the wallboard are given in D 3003.

★4. Wallboard D 2A/60577 and associated items.—This wallboard may be supplied in lieu of Wallboard D 3/60577 and includes a Container No. 2 and Bracket, Mounting, D 91092. Fixing detail is as for the Wallboard D 3/60577.

★5. Wallboard D 3/60577 and associated items.—This wallboard, comprising the lower half of a complete assembly, includes a Container No. 5 and a Bracket, Mounting, D 91092 and is used when a Box, Coin-collecting, No. 705 has to be fitted. The wallboard has seven fixing holes, four near the corners and three others fitted with recessed bushes towards the centre. Before the wallboard is secured the earth wire and line wires should be threaded through the holes provided. When an existing installation is being converted to pay-on-answer working it may be necessary to lengthen or renew the telephone lead-in and earth wire. Lead-sheathed cables should be jointed in accordance with LINES, Underground, F 3220 and polythene cables in accordance with LINES, Underground, F 3233. Joints in earth wires should be soldered or made with a Connector, Porcelain.

★6. Fitting in Kiosks No. 6 (Mk. 2).—The wallboard should be bolted to bosses on the back panel by four Screws, $\frac{1}{4}$ in. B.S.W. × 1 in., Rd. Hd., Brass (recovered with an existing wallboard or supplied with a new kiosk) and three Screws, $\frac{5}{16}$ in. B.S.W. × $\frac{7}{8}$ in., Socket Head (supplied with the wallboard).

★7. Fitting in Kiosks No. 6 (Mk. 1).—Two wooden battens 1 in. × $1\frac{1}{2}$ in. × 10 in. should be screwed to the rear face of the wallboard covering the three central fixing holes. Fix the wallboard temporarily to the back panel of the kiosk and using the central fixing holes as guides drill three holes with a $\frac{1}{4}$ in. drill through the battens and the back panel. Remove the wallboard and enlarge the holes in the battens to $\frac{5}{16}$ in. and tap the holes in the back panel to take a $\frac{5}{16}$ in. Whitworth bolt. In certain Kiosks No. 6 (Mk. 1), where attempts to remove the coin-collecting box forcibly have been made, these holes will already have been tapped. The wallboard should then be bolted to the back panel by four Screws, $\frac{1}{4}$ in. B.S.W. × 1 in., Rd. Hd., Brass and three Screws, $\frac{5}{16}$ in. B.S.W. × $1\frac{3}{4}$ in., Socket Head (obtained by local purchase). If

★TABLE 1

Wallboard	Referred to in par.	Use of wallboard
D 1/60577	3	Upper wallboard for public call offices
D 2A/60577	4	Lower wallboard for public call offices
D 3/60577	5-16	Lower wallboard for public call offices
D 4/60577	18–22	Lower wallboard for public call offices where L.P.A. directories used
D 1/63747 and D 2/63747	17	Generally similar to D 1 and D 2/60577 but 2 ft. 2 in. wide. Used in narrow cabinets. D 2/63747 is modified to carry a Bracket, Mounting, D 91092 where a Box, Coin-collecting, No. 705 is fitted. (These wallboards are now obsolescent)
D 91128	25	For use in subscribers' premises where a Box, Coin-collecting, No. 705 is fitted
Wallboard ...in. × ...in.	24	Exists in many subscribers' installations and in certain circumstances is modified to carry a Box, Coin-collecting, No. 700

difficulty is experienced in obtaining these screws locally, they may be obtained in boxes of 100 from:—

Guest, Keen & Nettlefolds (Midlands) Ltd.,
24 Heath Street,
Birmingham, 18

or The Unbrako Socket Screw Co. Ltd.,
Burnaby Road,
Coventry

or, in smaller quantities not less than ten from:—
Nettlefold & Moser Ltd.,
178 Borough High Street,
London, S.E.1

★**8. Fitting in Kiosks Nos. 1, 2, 3 and 4, cabinets and recessed call offices.**—In addition to the vertical battens, horizontal battens should be fitted with centre lines 3 ft. $7\frac{3}{4}$ in. and 2 ft. $4\frac{3}{4}$ in. from the floor. In Kiosks Nos. 1 and 3 steel angle brackets (made or purchased locally) may be used to secure the new battens to the existing battens. In Kiosks Nos. 2 and 4 the battens should be bolted to the back panel by Bolts, $\frac{5}{16}$ in. B.S.W. $\times 2\frac{1}{4}$ in., Csk. Hd. (purchased locally). Two holes should be drilled and tapped in the back panel for each batten. In cabinets and recessed call offices the battens should be screwed to the back panel by Screws for Wood, Steel, Csk. Hd., $1\frac{1}{2}$ in., Size 14. The wallboard should be screwed to the battens by four Screws for Wood, Steel, Japanned, Rd. Hd., $1\frac{1}{2}$ in., Size 14 and three Screws for Wood, Steel, Japanned, Rd. Hd., $1\frac{1}{4}$ in., Size 12. The visible edge between the upper and lower wallboards should be 3 ft. $8\frac{1}{2}$ in. from the floor.

★**9. Box, Coin-collecting, No. 705.**—To fit the Box, Coin-collecting, No. 705 to the Bracket, Mounting, D 91092, the Cover No. 50A, Mechanism No. 20 and Front No. 10 should be removed. Check that the adjustable bosses in the backplate, which are reversible, are in the correct position to receive socket-headed screws. Place the keyhole slots of the coin box backplate (inside the cash compartment) over the fixing studs on the lower part of the bracket. Screw in or out the backplate adjustable bosses which are fitted in the backplate so that the backplate is vertical, firmly seated against the bracket and not

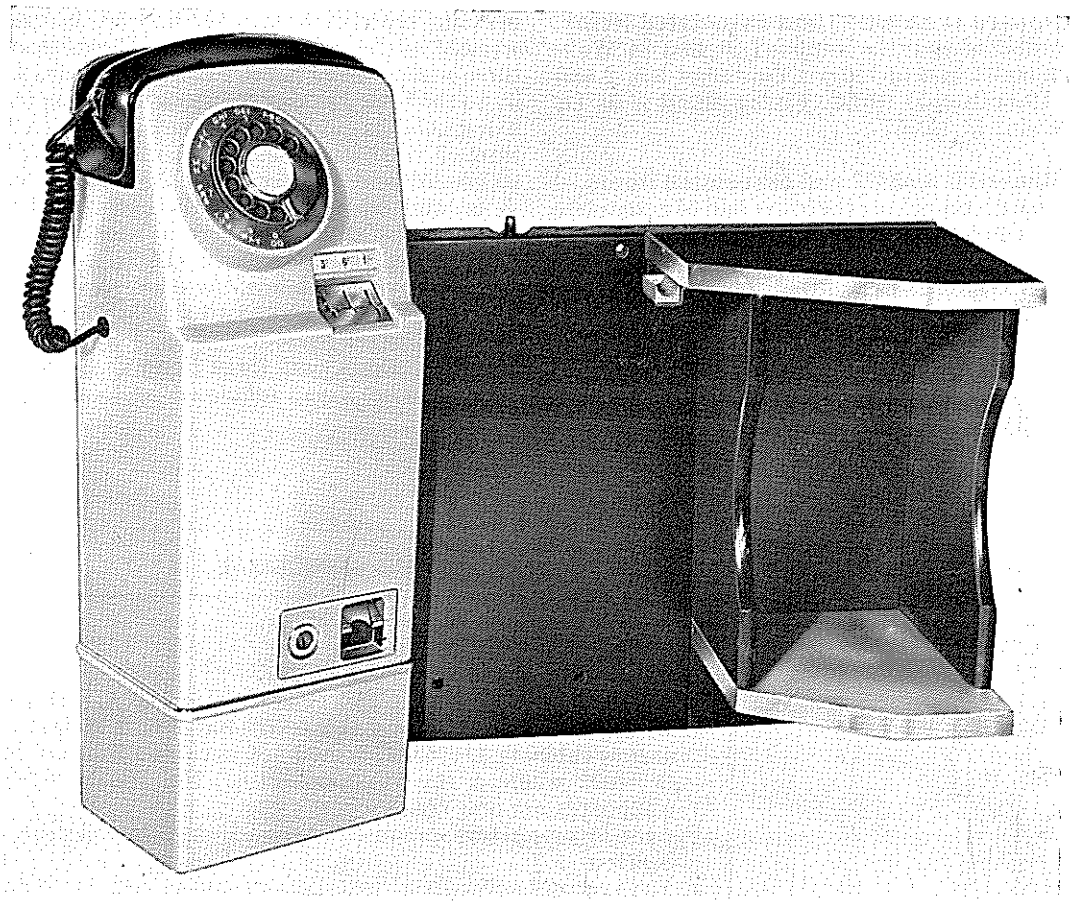

FIG. 1.—WALLBOARD D 2A/60577

liable to be distorted when finally bolted into position. The plastic foam on the bracket will be compressed by the backplate so that there is no visible gap between the bracket and backplate. The coin box should then be bolted to the bracket by two Screws, $\frac{5}{16}$ in. B.S.W. $\times \frac{7}{8}$ in., Socket Head (supplied with the bracket) passing through the adjustable bosses into the special nuts on the bracket.

Terminate the telephone cable and earth wire on the 'B' terminal block of the coin box (Dgm. N 805). Refit the Mechanism No. 20. Fit a Box, Coin-collecting, Parts: Lock No. 39... (recovered from the existing coin-collecting box, or obtained from the Supplies Dept.) to the Cover No. 50A. Box, Coin-collecting, Parts: Lock No. 31 must not be used with the Box, Coin-collecting, No. 705 and requisitions for Locks No. 39 should be endorsed 'Boxes, Coin-collecting, Parts: Locks No. 31 not acceptable'.

To fit and adjust the lock remove the cover locking plate, the lock retaining screws, the label housing and the adjustable plate from the cover locking plate. Place the lock in the lock mounting and replace the cover locking plate. Each lock retaining screw is provided with two washers of different thickness, one of 10 mil and the other of 28 mil. Thus four positions of the lock can be obtained between the lock and the lock mounting:—

(*a*) No washers
(*b*) 10 mil
(*c*) 28 mil
(*d*) 38 mil (10+28 mil)

Fit the lock in the position that permits the lock bolt to pass smoothly behind the angled locking plate and permits a maximum of 30 mils estimated forward play when the cover is locked to the cash compartment. Spare washers should be placed under the heads of the lock retaining screws. Replace the label housing and the adjustable plate to the cover locking plate, ensuring that it is in the position which gives the

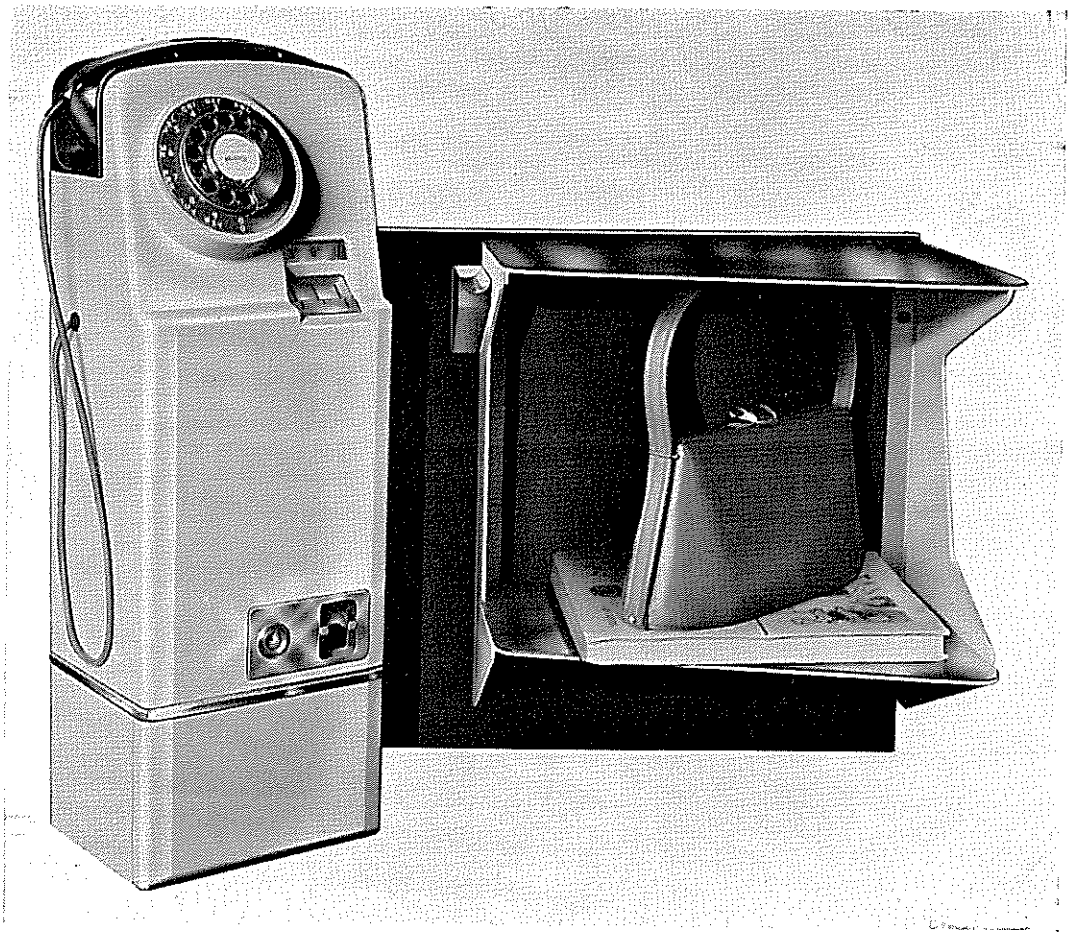

FIG. 2.—WALLBOARD D 3/60577

minimum clearance between the edge of the plate and the lock bolt. This plate is reversible and has two sets of fixing holes which enable it to be fitted in four different positions.

If the cover locking mechanism is of an earlier issue with a sliding locking bar the locking lever and label housing must be removed and the lock fastened to its mounting by the four screws supplied with the cover. The lever and label housing should then be refitted. The two projections on the right-hand side of the lever should engage with the upper and lower surfaces of the lock bolt and the left-hand projection should slide in the groove of the locking bar. Care must be taken to ensure that the locking lever spring is positioned over the left-hand edge of the lever. The locking bar is fitted with an adjustable stop. The small projection of the stop should lie between the spring and the locking lever. If necessary, the stop should be adjusted as follows:—

(*a*) Turn the lock to the unlocked position.

(*b*) Loosen the locking-bar stop fixing screw and slide the stop until it rests against the locking lever.

(*c*) Tighten the screw.

(*d*) Replace the cover and check that the key can be turned to the locked position without force and the key removed.

(*e*) Turn the key to the unlocked position. Raise the cover $\frac{1}{16}$ in. approximately and turn the key gently towards the locked position until resistance is felt. This occurs when the locking bar engages with the locking stud. Check that the key cannot be withdrawn with the lock in this position.

(*f*) If difficulty is found in meeting condition (*d*) a small clearance between the stop and the locking lever is permissible provided condition (*e*) is satisfied. Difficulty may be due to the top right-hand lug of the

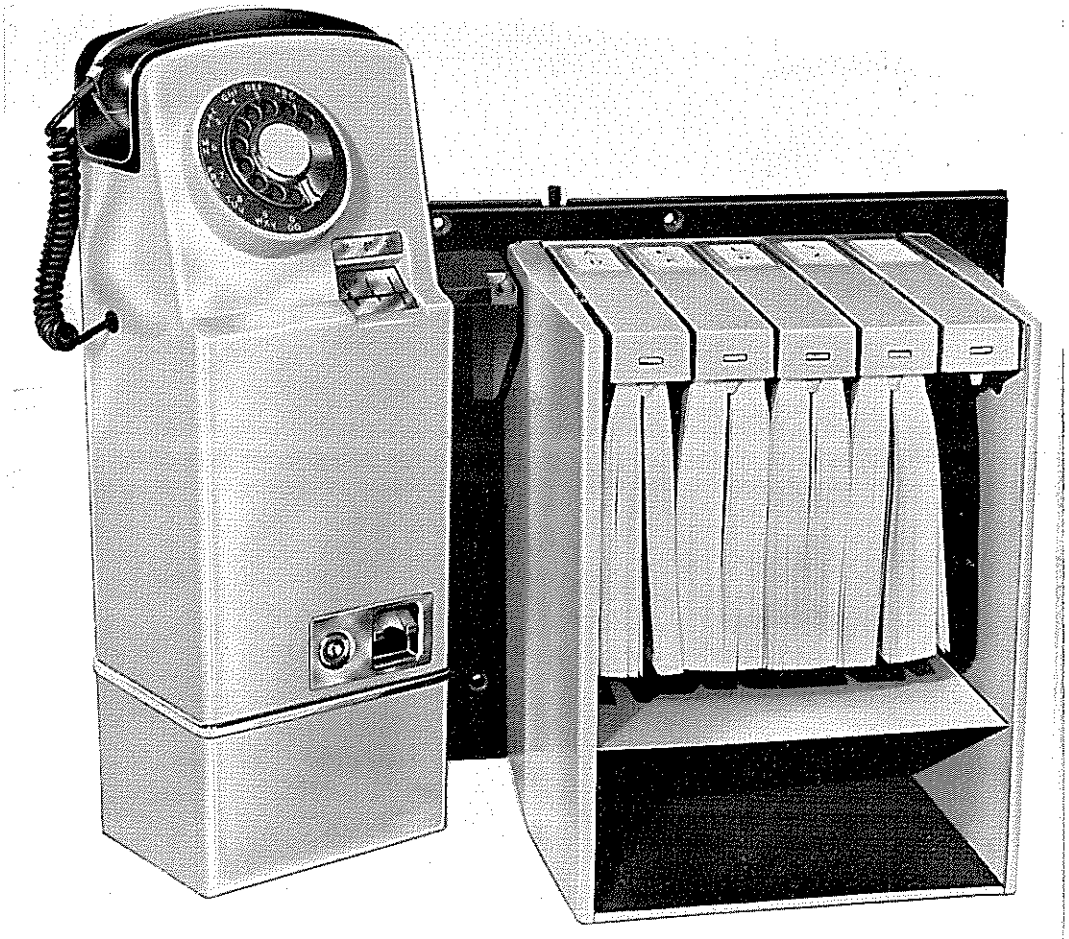

FIG. 3.—WALLBOARD D 4/60577

locking lever fouling the lock wards. This lug may be adjusted by bending towards the lock backplate to ensure full engagement with the lock bolt.

Fit a Lock No. 6M to the Front No. 10 and slide the front into position on the cash compartment. The lock should be slid approximately into position in the lock housing and then finally adjusted to give a smooth operation by pressure on the key inserted in the keyhole. The lock will be held in the chosen position by the strong spring provided in the base of the lock housing. (*NOTE*:—The Front No. 10 cannot be fully closed and the lock cannot therefore be thrown unless a cash container is in position.) The lock would normally be provided by a collector who will also fit a Container, Cash, No. 5. If it is not possible for a collector to be present a temporary lock and a Box No. 4 should be fitted. In this case a wad of paper or similar material should be placed between the Box No. 4 and the Front No. 10, to permit the latter to be fully closed. The Box No. 4 and the Lock 6M will be returned to the T.M. (Eng. Divn.) by the Head Postmaster in due course.

Where a Box No. 4 is to be used permanently in place of a Container, Cash, No. 5, release the front end of the cash container stop spring from its anchorage.

★**10. Protectors in kiosks.**—Where a protector is needed, a Box, Weatherproof, CD 364, which is

FIG. 4.—WALLBOARD D 91128

designed to house a Protector and Fuse No. $1\frac{2}{3}$, should be fitted on the back panel of the kiosk. Telephone cables and the earth wire should be protected by Conduit No. 2A. This work should be carried out by staff used to working with conduit. Wherever possible the overhead line should be terminated on Insulators No. 16 and Protectors, Insert for Insulators fitted as described in LINES, Overhead, G 3008.

11. *Fitting of Boxes, Weatherproof, CD 364.*—

(*a*) In Kiosks Nos. 2, 4 and 6 the box should be fitted with the entry holes to the left so that the lower left-hand corner of the box is 6 in. from the kiosk floor and $4\frac{1}{2}$ in. from the left-hand pillar. The back panel of the kiosk should be drilled (using a $\frac{3}{16}$ in. drill) and tapped to take three $\frac{1}{4}$ in. B.S.W. $\times \frac{1}{2}$ in. Rd. Hd. fixing screws (obtained by local purchase).

(*b*) Before a Box, Weatherproof, CD 364 is fitted in a Kiosk No. 1 or 3, it should be ascertained that the kiosk is not due to be changed because of poor condition. If such a change is proposed it should be made before the box is fitted. The box should be fitted with the entry holes to the right so that the bottom right-hand corner of the box is 6 in. from the floor of the kiosk and 7 in. from the right-hand corner. Three holes should be drilled through the back panel of the kiosk using a Bit, Wall, Hard-tipped, $\frac{5}{16}$ in. The box should then be bolted to the back panel by three Bolts, $\frac{1}{4}$ in. B.S.W. $\times 2\frac{1}{2}$ in. (obtained by local purchase). A washer must be placed under the bolt head which should be on the outside of the kiosk.

12. *Protection of leads.*—Leads and earth wire should be run in conduit from the lead-in point to the Box, Weatherproof, CD 364 (which has two entry holes threaded for Conduit No. 2A) and from the box to a point 3 ft. from the kiosk floor. The brass bush supplied with the Box, Weatherproof, CD 364 should be recovered. The upper length of conduit should be fixed behind the wallboard by a Saddle, Conduit, No. 2A. In Kiosks Nos. 2, 4 and 6 tapped fixing holes to take two Screws, Iron, Whitworth Thread $\frac{3}{16}$ in. $\times$ $\frac{5}{16}$ in. long, with Rd. Hd. (R.B. item) are provided just above the bottom left-hand edge of the wallboard. In Kiosks No. 1 and No. 3 (Mk. 234), there are two hardwood plugs just above the bottom right-hand edge of the wallboard. The saddle should be fixed to the plugs by two Screws for Wood, Steel Japanned, Rd. Hd., 1 in., Size 8. In Kiosk No. 3 (Mk. 2), there is a conduit clip on the right-hand wallboard batten.

On new installations the lead-in cables should be run in conduit brought in through the concrete floor to the Box, Weatherproof, CD 364. On existing installations a number of leading-in arrangements may be encountered and any suitable arrangement of conduit from the lead-in point to the box may be used so long as the following principles are observed:—

(*a*) The cable must be continuously protected.

(*b*) If an asbestos lead-in duct is in use, the space between the duct side and the conduit must be filled so that the kiosk floor is level and there are no crevices in which coins may be lost.

(*c*) Any connexions between lengths of conduit must be firm and secure and should normally be made by means of a Coupling, Conduit, No. 2A or a Bend, Conduit, No. 2A. If a lead-in conduit protrudes through the floor for a very short distance and the connexion cannot be made by the normal means the following method may be adopted:—Chip away the concrete round the existing conduit to a depth of 1 in. Slide a 4 in. length of Conduit No. 3A over the existing conduit and seal into the floor with a cement fill. The new length of Conduit No. 2A should then be slid into the Conduit No. 3A and secured by fixing to the Box, Weatherproof, CD 364.

★**13.** *Termination of cables on protectors.*—The telephone cables should be terminated on the protector in the usual way. Four strands of the earth wire should be unravelled, cut back, lapped and soldered round the remaining three strands within the Box, Weatherproof. The remaining three strands should be wrapped once round the earthing screw (which should be refitted inside the Box, Weatherproof) and then taken on to the earthing boss. If no earthing boss exists the earth wire should be terminated on the earth screw and a length of Wire, P.V.C., No. 1, 1 Wire $9\frac{1}{4}$... run from the earth terminal of the protector to the earth terminal of the Box, Coin-collecting, No. 705. The protector is automatically earthed by the fixing screw between the electrodes.

14. Protectors in cabinets and recessed call offices.—The protector must be fitted in a position where it is not accessible to a person using the telephone.

15. Protection of leads where a protector is not fitted.—All cables not concealed by the wallboard must be protected. Capping, Steel, No. 6 should be used for new work in Kiosks No. 6 (see C 3001). The leads should be protected by Conduit No. 2A in other kiosks and by Capping, Wood, No. 1 in cabinets and recessed call offices.

16. Directories.—The directories should be placed in the Container No. 5.

★**17. Wallboards D 1/63747 and D 2/63747.**—These wallboards are similar in layout to the D 1 and D 2/60577 but are 2 ft. 2 in. wide. Fitting procedure is described in D 3003. When an installation using these wallboards is transferred to pay-on-answer working the Wallboard D 2/63747 should be modified to carry a Box, Coin-collecting, No. 705 in the following way:—

(*a*) Recover the existing coin-collecting box and Containers No. 3 and No. 4.

(*b*) Recover the upper metal strip at the rear of the wallboards. Cut the strip in half and refit the left-hand half (looking from the rear).

(*c*) Countersink the four existing $\frac{3}{8}$ in. holes to accommodate the central fixing screws.

(*d*) Drill five $\frac{7}{16}$ in. holes in the wallboard in the following positions (looking from the front):—

(i) $2\frac{1}{4}$ in. from the left-hand edge and $\frac{1}{2}$ in. from the bottom edge

(ii) $2\frac{1}{4}$ in. from the left-hand edge and 1 ft. $5\frac{7}{16}$ in. from the bottom edge

(iii) $6\frac{9}{16}$ in. from the left-hand edge and $\frac{1}{2}$ in. from the bottom edge

(iv) $6\frac{9}{16}$ in. from the left-hand edge and 1 ft. $5\frac{7}{16}$ in. from the bottom edge

(v) 1 in. from the left-hand edge and 1 ft. $1\frac{3}{4}$ in. from the bottom edge

(*e*) Cut suitable grooves in the wallboard in preparation for operation (*f*).

(*f*) Fit mild steel strips (made locally to Detail 9 on Drg. 60577) on the rear of the wallboard in the grooves already cut (*e*) so that their centres are $\frac{1}{2}$ in. and 1 ft. $5\frac{7}{16}$ in. from the bottom of the wallboard and their right-hand edges $1\frac{3}{4}$ in. from the edge of the wallboard looking from the rear.

(*g*) Fill any unnecessary holes in the wallboard using any suitable material such as plastic wood (purchased locally).

(*h*) Smooth and repaint the front face of the wallboard using a high gloss black enamel.

(*j*) Fit the bracket to the wallboard using four Screws, $\frac{5}{16}$ in. B.S.W. × $\frac{3}{4}$ in., Hex. Hd., M.S. (obtained by local purchase) and the metal plates previously fitted in (*f*).

(*k*) Refit the Container No. 4.

When the existing wallboard is not suitable for modification, due to poor condition or otherwise, and a replacement is not available locally a Wallboard D 2/60577 should be modified. The following additional work will be required between operations (*c*) and (*d*).

(*l*) Remove washers from left-hand side fixing holes (looking from front).

(*m*) Remove a 3 in. strip from the left-hand side of the wallboard.

(*n*) Drill two $\frac{5}{16}$ in. holes in the wallboard in the following positions (looking from the front):—

(i) $2\frac{3}{4}$ in. from the left-hand edge and $2\frac{1}{4}$ in. from the bottom edge

(ii) $2\frac{3}{4}$ in. from the left-hand edge and 1 ft. 4 in. from the bottom edge

(*o*) Fit the washers flush by countersinking

(*p*) Remove the peg from the top edge.

★**18. Wallboard D 4/60577 and associated items.**—This wallboard, intended primarily for use in the London Telecommunications Region, is used with a Wallboard D 1/60577 where L.P.A. directories are provided inside the call office. It includes a Bracket, Mounting, D 91092, a Shelf No. 9 and a Holder, Directory, No. 5. To facilitate maintenance work on the coin box mechanism the directory holder can be unlocked and lifted off its fixing studs. The holder accommodates up to five directories on pivoted carriers and includes a shelf on which additional directories may be placed. The wallboard is the same size and has identically spaced fixing holes as the Wallboard D 3/60577, and the fitting instructions in pars. 5 to 15 should be followed. Before fitting a wallboard the directory holder should be lifted off the four fixing studs after first removing the mushroom headed bolt which is used to retain the holder on the wallboard during transportation. Recovered bolts should be disposed of locally.

In standard cabinets and recessed call offices as distinct from kiosks, because of the limited space available, the Wallboard D 4/60577 and its associated Wallboard D 1/60577 should be fitted as far to the right as possible. In existing installations it may be necessary to move the vertical battens. The extreme right-hand directory carrier must not be used in these situations.

★**19.** *Directory holder.*—A Box, Coin-collecting, Parts: Lock No. 31 or 39... should be fitted from the rear in the lower fixing plate of the Holder, Directory, No. 5. When fitted, the bolt of the lock should be towards the left-hand side (viewed from rear). The holder should be replaced on its fixing studs on the wallboard and the lock operated several times to ensure its satisfactory operation. When a Lock No. 31 is used it will be necessary to slightly enlarge the holes for the fixing screws to provide clearance for the 4BA screws provided with the holder. The extreme right-hand directory carrier is supplied locked in position by a metal plate screwed to the top right-hand side of the holder. Where this carrier is to be used the plate should be removed and refitted after positioning the long side downwards.

★**20.** *Fitting of directories.*—Directories are suspended from pivoted carriers by metal strips. To fit a directory in a carrier, remove the metal strip after having released the socket-headed set-screw in the rear end of the carrier using a suitable $\frac{1}{8}$ in. Allen key which should be purchased locally. Where separate directory covers are provided for use with paper covered directories in lieu of stiff covered call office directories they are fitted as follows:—

The separate cover is opened out across the carrier and is located by two Pegs No. 15... which are inserted through the former into the carrier. The paper covered directory is opened at the centre of the middle section and the narrow edge of the metal strip is inserted against the directory spine. The directory is closed on the strip which is refitted and locked in the carrier by screwing up the socket-headed set-screw. The separate cover is thus held further secured by being compressed against the rubber pad of the carrier by the spine of the directory.

★**21.** *Adjustment of brake in directory carriers.*—An adjustable brake is included in each directory carrier to prevent fast restoration with possible injury to users. The initial adjustment of the brake should be such that with a directory fitted the carrier will not restore to its normal (at rest) position by gravity but will require assistance (allowance should be made for high spots on the brake wearing off after a period of use, which will tend to speed up restoration of the directory). Access to the adjusting screws of the brake is obtained via two holes in the aluminium plate of the directory carrier. It will be found convenient to gain access from each side of the directory which should be held in the upwards but closed position. A similar amount of rotation should be given to each screw to ensure a constant effect over the whole braking area. Brake effect is increased by rotating screws in a clockwise direction or decreased by rotating them in an anti-clockwise direction. Adjustment may be made using a Screwdriver, Instrument, No. 1 or other suitable tool.

★**22.** *Labels for directory holders.*—Labels No. 400..., self-adhesive identification labels, should be fitted in the recess in the tops of the directory carriers. Initially to ensure good adhesion it may be necessary to apply a coat of adhesive in the recess of the directory carrier. Evostik No. 528, obtained locally, should be used.

SUBSCRIBERS' INSTALLATIONS

23. The Box, Coin-collecting, No. 700 is used for subscribers' coin box installations. It includes a Mechanism No. 20 and is used with either a wall- or table-mounted 700-type telephone. A notice is carried on the coin box front and separate notice frames are not used. A Box No. 4 is used to collect the cash.

★**24. Fitting of coin box.**—The coin box should normally be fitted direct to the wall without a wallboard. As the coin box with a full cash container weighs more than 40 lb. great care must be taken to obtain adequate fixings. Where suitably spaced fixings cannot be obtained or where the coin box is to be fitted to a very uneven surface, the apparatus may be fitted to a Wallboard ...in.×...in., which should be as small as possible. The coin box should normally be fitted with the coin denomination plate 3 ft. 8½ in. from the floor. In existing installations the wallboard may be recovered if the subscriber agrees but it should be made quite clear that the P.O. cannot be responsible for any redecoration required. Otherwise the coin box should be fitted to the existing wallboard. A wall telephone may also be fitted on a wallboard which is large enough to accommodate both items. Notice frames should be recovered and any holes left exposed should be filled with a suitable stopping material. The wallboard may be repainted where necessary.

On existing installations the subscriber should be requested to empty the cash compartment before the old apparatus is recovered. Before the coin box is fitted the mechanism compartment and cash compartment fronts (Fronts Nos. 11 and 12) and the Mechanism No. 20 should be removed. The mechanism is connected to the terminal strip by flexible cordage terminated on a plug and jack, and is retained in position by a spring on the bottom of the mechanism compartment.

The coin box should be secured by two Screws for Wood, Steel, Csk. Hd., Size 14 through the adjustable bosses in the mechanism compartment and two Screws for Wood, Steel Japanned, Rd. Hd., Size 14 with ¼ in. washers through the holes in the cash compartment. The screws should be at least 1½ in. long. The bosses are reversible and should be fitted to receive wood screws and adjusted so that the coin box is firmly seated against the wall or wallboard without distortion of the case. The lower two screws should not be fully tightened; this is to facilitate emergency removal of the coin box should the cash compartment lock jam.

Connect the line and telephone (N 2423) using Cable, P.V.C., No. 1 for wall-mounted telephones and Cord, Instrument, No. 9/21AD... for table-mounted telephones. The cord and cable entry hole is in the bottom of the cash compartment. An anchorage for the cord grommet is provided in the lower mounting bracket for the termination strip in the coin box. Refit the Mechanism No. 20. Fit a Box, Coin-collecting, Parts: Lock No. 31 or 39... to the Front No. 11 using the four screws provided with the front. The bolt-retaining bar should be adjusted to obtain a good fit between the front and the case consistent with the lock being operated with only a light pressure on the key.

Fit a Lock No. 14 to the Front No. 12 using the screws provided with the front. The lock will be supplied by the T.M. (Clerical Divn.) for new installations and for existing installations where other types of lock are fitted. To test the lock, the key should be obtained from the subscriber, who should be requested to lock the cash compartment when the installation is complete. Instruction in the use of the Lock No. 14 and Box No. 4 should be given if required.

★**25. Wallboard D 91128.**—This wallboard is used for subscribers' coin box installations when a Box, Coin-collecting, No. 705 is to be fitted. This coin box should only be fitted when it is specified on the Advice Note. The wallboard is 16 in. wide and 32¼ in. high and includes one Frame, Notice, No. 30 and one Frame, Notice, No. 31. Each frame is secured by a Bracket, Mounting, DQ, 6½ in. at the top and a Bracket, Mounting, DH, 6½ in. at the bottom. A plinth with drilled pilot screw holes for mounting a Box, Coin-collecting, No. 705 and a coin shelf are also included.

To fit the apparatus the notice frames should first be removed from the wallboard using a Key, Frames, Notice, No. 29 to expose the two upper fixing holes of the wallboard. Fix the wallboard in position using Screws for Wood, Brass, Csk. Hd., 3 in., Size 14. The top edge of the wallboard should normally be 4 ft. 8½ in. from the floor. Remove the cover and mechanism from the backplate of the coin box. The two bushes near the top of the backplate are reversible and should be fitted to receive countersunk screws. Offer the backplate to the wallboard and adjust the bushes to ensure that the backplate seats evenly on all four supports (if necessary the bushes can be finally adjusted before the securing screws are tightened). Screw the backplate to the wallboard using Screws for Wood, Brass, Csk. Hd., 1½ in., Size 14 for the top fixings and Screws for Wood, Brass, Rd. Hd., 1½ in., Size 14 with ¼ in. washers for the lower fixings. The lower two fixing screws should not be fully tightened; this is to facilitate emergency removal of the coin box should the cash compartment lock jam. Release the front end of the cash compartment locking-bar spring from its anchorage. Fit a Box, Coin-collecting, Parts: Lock No. 39... to the cover and a Lock No. 6M to the Front No. 11. The fitting instructions for the lock in par. 9 should be followed. The Lock No. 6M will be issued with the Advice Note. Connect the instrument in accordance with the appropriate N diagram. Replace the cover, mechanism and notice frames, after inserting the appropriate notices [obtainable from the T.M. (Clerical Divn.)]. Insert a Box No. 4 in the cash compartment. Test the cash compartment lock. The key should be obtained from the subscriber who should be requested to lock the cash compartment when the installation is complete. The subscriber should be shown how to open the cash compartment and how to use the Box No. 4.

On existing installations the subscriber should be requested to empty the cash compartment before the old apparatus is recovered. Should the subscriber not agree to the replacement of an existing wallboard by a Wallboard D 91128, the existing wallboard or, if the demands of good appearance make it necessary, a new wallboard of similar size may be modified to accommodate the Box, Coin-collecting, No. 705 and Frames, Notice, Nos. 30 and 31. The notice frames should be mounted on Brackets, Mounting, DQ and DH, 6½ in. to ensure that they may only be removed with the aid of a Key, Frames, Notice, No. 29. Drgs. 91128 and 91174 show details of the holes required in the wallboard to accommodate the coin box and notice frames. The holes for the notice frame brackets must be accurately drilled to ensure correct fitting of the glass and frame. Plug any surplus holes in a modified wallboard with a suitable stopping material purchased locally.

TESTS TO BE APPLIED AFTER INSTALLATION

★**26.** The functional tests which should be applied are described in TESTS & INSPECTIONS, Routine, S 5227. No attempt should be made to adjust the mechanism on site; faulty mechanisms must be exchanged with the coin box maintenance centre. If for any reason it is not possible to open a public call office for service immediately after the fitting work has been completed a notice T 431G should be exhibited and should be recovered when the installation is brought into service.

References:—C 3001, D 1001, D 3003
(S1/2) LINES, Underground, F 3220, F 3233
LINES, Overhead, G 3008
TESTS & INSPECTIONS, Routine, S 5227

END

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COIN-COLLECTING BOXES

Locks and Keys

★*[NOTE:—As this Instruction has been completely revised, individual paragraphs have not been 'starred'. It now includes information on maintenance difficulties and reviews the arrangements for the holding of keys]*

1. General.—This Instruction details the various locks and keys used in association with coin-collecting boxes, and indicates the arrangements to be made for their provision and use. Tp. S.I. G3 XV 17-21 refers.

2. Types of locks and keys.—The locks and keys to be used in association with the mechanism and cash compartments are shown in Table 1.

MECHANISM COMPARTMENT

3. Locks.

(*a*) Boxes, C.C., Parts: Locks No. 31 are gradually being replaced by Boxes, C.C., Parts: Locks No. 39... with the exception that, to facilitate maintenance, the former should always be fitted to coin-collecting boxes which are required to be permanently installed on-board ships. Retrospective action should only be taken when it is considered necessary in the interests of security.

(*b*) Boxes, C.C., Parts: Locks No. 39... are available in different combinations which are identified by suffix letters (e.g. Box, C.C., Parts: Lock No. 39BG) and each Maintenance Control area has been allocated a particular combination.

(*c*) If temporary shortage of any particular combination of Boxes, C.C., Parts: Locks No. 39... should occur, the Supplies Dept. have been instructed to supply Boxes, C.C., Parts: Locks No. 31 in lieu, if available.

4. When Boxes, C.C., Parts: Locks No. 39... should be used.—

(*a*) *New work.*—When a coin-box is to be installed, a Box, C.C., Part: Lock No. 39... must be requisitioned and issued to the fitter with the other stores. The locks are supplied without keys because the maintenance officers will already have keys of the correct combination and the fitter should be loaned a key for the duration of the job from the Installation Control pool of keys [see par. 8(*b*)].

(*b*) *Maintenance replacements.*—When a defective lock (whether of No. 31 or No. 39 pattern) requires maintenance replacement, a Box, C.C., Parts: Lock No. 39... should be obtained on maintenance exchange, except where the lock is required for a coin-collecting box permanently installed on-board a ship (see also par. 7).

(*c*) *Special cases.*—Because of the possibility of a Box, C.C., Parts: Lock No. 31 being issued in lieu of a Box, C.C., Parts: Lock No. 39... during any period of shortage of the latter type [see par. 3(*c*)], requisitions for Boxes, C.C., Parts: Locks No. 39... that are intended for use at public call offices or on Boxes, C.C., No. 705 fitted on subscribers' installations should be endorsed 'Box, C.C., Parts: Lock No. 31 not acceptable'.

5. Precautions when fitting locks.—When fitting locks it is important that the lock adjustments detailed in D 3004 for pay-on-answer coin boxes and D 3003 for pre-pay-on-answer coin boxes are carried out to ensure that a tight fit consistent with ease of operation of the lock is obtained.

TABLE 1

Type of installation	Container, Cash, No....		Cash compartment		Mechanism compartment	
	Lock	Key	Lock	Key	Lock	Key
Public call offices	Lock No. 15... (identified by code letters)	Appropriate Key, Lock, No. 15...	Lock No. 6M (identified by manufacturer's name, suffix letter and serial number)	Appropriate Key, Lock, No. 6M	Box, C.C., Parts: Lock No. 39... (see pars. 3 and 4)	Appropriate Key, Lock, No. 39...
Subscribers' coin-box installations	Not used		Lock No. 14A (or Lock No. 6M when Box, C.C., No. 705 fitted)	Appropriate Key, Lock, No. 14 or No. 6M	Box, C.C., Parts: Lock No. 39... or Box, C.C., Parts: Lock No. 31 (see pars. 3 and 4)	Appropriate Key, Lock, No. 39... or Key, Lock, J

6. Requisitioning instructions.—T.M.s have been advised of the Punched Card Unit numerical codes of the particular combinations of locks and keys used in their Areas and these codes must be used when requisitioning. Requisitions for new and replacement keys must be signed by the Area Engr., who should satisfy himself of the need for the demand.

7. Disposal of recovered locks and keys.—

(*a*) *Locks.*—Return serviceable locks to the Supplies Dept. clearly labelled 'Fit for reissue'. Defective locks must be destroyed in the presence of the local supervising officer, who should then list the locks on a form A 283 and certify that the locks have been destroyed. The form A 283 should be forwarded to the Clerical Divn. (Stores Duty). *NOTE.*—To destroy the locks, it is essential that the levers are thoroughly distorted.

(*b*) *Keys.*—When keys are returned to the Supplies Dept. they must be dispatched in accordance with STORES, Workmen's Procedure, P 0011. Label serviceable keys 'Fit for reissue'.

8. Care of keys.—

(*a*) *General.*—It is very important that the strictest control be exercised over the issue of keys, their location, and their subsequent disposal. To facilitate this control, after issue, it is essential that keys should not be taken out of the Area in which they were issued and, where reasonably possible, an engineering officer holding keys permanently [see (*b*)] should return them to his supervising officer before proceeding on annual leave for a period of over four days, or in the event of protracted sick leave; it will also be necessary for an officer to hand over his Key, Lock, No. 39... before proceeding on transfer to another Maintenance Control area.

(*b*) *Officers to whom keys may be issued.*—Engineering officers who must have access to coin-collecting box mechanisms have to hold both a Key, Lock, J and a Key, Lock, No. 39... of the combination proper to the Maintenance Control area in which they work. As far as practicable, only those officers who, in the course of their normal duties, require daily access to coin-collecting-box mechanisms should hold keys permanently. Any officer who requires the use of a key at infrequent intervals only should obtain one from a central point, e.g. the Maintenance Control or an attended exchange to which he should return the key when he has finished with it. Spare keys held for this purpose should be kept in safe custody when not in use. Fitters who work in more than one Maintenance Control area will require a Key, Lock, No. 39... of each code concerned. The correct key should be issued with the Advice Note and returned on completion of the job. The importance of restricting issues of these keys cannot be too strongly emphasized.

(*c*) *Record of keys held in each Area.*—A complete and accurate record of all coin-collecting-box mechanism compartment keys held in each Area should be prepared and maintained by the Clerical Divn. (Stores Duty). The H.C.O. should ensure that the record is reviewed each year by sending each local supervising officer concerned a list of names of those officers under his control who hold keys and the types and number of keys held. The supervising officer should check that the keys are still held and certify that

(i) each key is still in the possession of the officer named [see (*d*) if keys cannot be found], and

(ii) it is still necessary for each key to be retained. (Dispose of keys no longer required in accordance with par. 7.)

(*d*) *Lost keys.*—The loss of any key should be thoroughly investigated by the supervising officer.

(*e*) *Key chains.*—A Key Guard (SP66), which consists of a 1¼ in. split ring on a 16 in. chain with a leather tab for attachment to a trousers button, may be obtained as necessary from the Clerical Divn. (Stationery Duty) for officers who normally are required to carry several keys.

CASH COMPARTMENT—PUBLIC INSTALLATIONS

9. Permanent locks.—Arrangements for the provision and fitting of the permanent Lock No. 6M for the cash compartment will be made by the Clerical Divn. When a new coin-collecting box is to be installed, the Engineering Divn. will advise the Clerical Divn. in reasonable time, so that arrangements may be made for the permanent Lock No. 6M to be fitted as soon as possible after the completion of the installation.

10. Temporary locks for use by engineering staff.—It may sometimes be convenient, e.g. when a new installation is fitted or a fault is cleared, to arrange locally for an engineering officer to secure the cash compartment by means of a suitable lock of the No. 6 type. A small stock of these locks (and in addition in some Areas, a stock of earlier-pattern lock known as a Lock No. 2) is held locally by the engineering staff for this purpose. The permanent Lock No. 6M will be placed in position by the collector as soon as convenient, and the temporary lock will be returned to the Engineering Divn. at the earliest moment. Keys for these temporary locks should be held by the engineering staff, and by the Clerical Divn., a key being sent by the latter to the Head Postmaster responsible for normal clearing of any box to which a temporary lock has been fitted.

Standard items used for this purpose are:—

(*a*) Locks No. 2 and Key, Lock, F

(*b*) Locks No. 6C } and appropriate keys

(*c*) Locks No. 6M }

Further provision of items (*a*) and (*b*) will not be made and, when it is required to augment the present stock or to replace a faulty item, obtain Locks No. 6M and appropriate keys from the Chief Clerk (Clerical Divn.) to whom faulty items should be returned.

11. Containers, Cash, No. ....—The arrangements for the initial fitting of a Lock No. 15... used with this container are described in D 3902, which describes the procedure for dealing with new locks found to be faulty at the time of fitting.

Locks becoming faulty in service should, as far as the engineering staff is concerned, be treated as follows:—

The container (complete) on which the lock is faulty, and the appropriate key, will be handed to the Engineering Divn. by the Head Postmaster. If the difficulty is due to the lid having been interchanged, so that the lock-bolt will not slide beneath the latching plate of its new container, correct this as described in D 3902. If the lock itself is faulty, remove it and hand it to the Postmaster's representative; in due course a new lock will be supplied which should be fitted as described in D 3902.

Keys for these locks, with the exception of Keys, Lock, No. 15 ENG whether for new work or replacement of faulty items, will be obtained by the Clerical Divn. or Head Postmaster only, and will not be held by engineering officers.

To enable engineering officers to test the functioning of containers cash, Locks, No. 15 ENG and Keys, Lock, No. 15 ENG are available. These locks have the same dimensions as other Locks No. 15... but are only used by engineering staff. The Lock, No. 15 ENG supersedes the Lock No. 19 which was a dummy lock operated by a screwdriver (see A 5902).

CASH COMPARTMENT— SUBSCRIBERS' INSTALLATIONS

12. Supply of locks.—When an Advice Note is issued for the provision of a subscriber's circuit with a coin box, the Clerical Divn. will issue a Lock No. 14A or Lock No. 6M, as appropriate, with the Advice Note. The Installation Control will inform the Clerical Divn. sufficiently early to ensure that the appropriate key is in the subscriber's possession before the Advice Note is issued to the fitter (see WORKS, Execution, C 0016). Subscribers should not be provided with a key to the mechanism compartment. The fitter should fix the lock to the cash compartment with the securing screws provided with the coin box. When the installation is ready for service the subscriber should be requested to lock the cash compartment. The fitter should check that the cash compartment is locked before placing the installation in service.

13. Replacement of cash compartment lock.—When it is necessary to change a cash compartment lock, ask the Clerical Divn. to provide a Lock No. 14A or Lock No. 6M, as appropriate, and dispatch the key to the subscriber. At the same time, advise the Clerical Divn. of the date on which it will be convenient to make the change, so that the items to be replaced will be available in time. When the lock has been changed, request the subscriber to lock the cash compartment. Return the recovered lock to the Clerical Divn. immediately and ask the subscriber to return the old key to the T.M. (Clerical Divn.).

MAINTENANCE DIFFICULTIES

14. Access to cash compartment.—When it is necessary, for maintenance purposes, to gain access to the cash compartment of a coin box, make arrangements for a collector (or the subscriber, in the case of a subscriber's circuit with coin box), to clear it at the time and, subsequently, to re-lock it.

15. Forcible removal of locks.—Due to keys being lost or lock mechanisms becoming jammed it is sometimes necessary to use force to remove the locks fitted to coin-collecting boxes. The various methods to be employed to ensure that a minimum of damage is sustained by the coin box consistent with reasonable labour charges are detailed in pars. 16–20. When a lock is to be removed from a cash compartment the collector, if a public call office, or the subscriber, if a subscriber's installation, must be present to recover the cash. When coin boxes or coin-box parts are to be returned to Supplies Dept., the locks must first be removed.

16. Locks, No. 14 and No. 14A.—These locks are of the cylinder type and it is necessary to sever the pins that lock the cylinder to the fixed barrel. To sever the pins, drill a hole $\frac{5}{16}$ in. diameter and approximately $\frac{7}{8}$ in. deep in that part of the lock barrel that has the lock type number stamped on it, in a position in line with the cylinder key slot and overlapping the cylinder by approximately $\frac{1}{16}$ in. To drill the hole use a carpenters brace, do not use power tools as their use for this particular task may be dangerous. When the hole has been drilled, rotate the cylinder by means of a screwdriver or similar tool inserted in the key slot and release the lock.

17. Locks No. 6M fitted to Boxes, C.C., No. 705.—Replace the cash compartment complete with lock, by the methods described in D 5010, and remove it to the maintenance centre, linesman's headquarters or wherever suitable facilities are available to perform the following work.

Remove the cover locking studs, the two angled locking plates and the two 4BA screws from the upper surface of the cash compartment. Remove the two hexagonal rods from the lower part of the cash compartment using a Spanner, Box, No. 4. To remove the rods it is necessary to prevent the two nuts, located in recesses at either side of the steel lining, from rotating. Withdraw the lining and Front No. 10 from the cash compartment casting. Destroy the lock by drilling a hole $\frac{3}{8}$ in. diameter and approximately $\frac{5}{8}$ in. deep through the lining and into the lock mechanism in a position $1\frac{1}{8}$ in. from the inside face of the Front No. 10 and $2\frac{5}{8}$ in. from the left-hand vertical of the lining

when viewed from the rear. Do not make attempts to drill through the lock from the outside of the lock housing or a hole deeper than that recommended as the lock outer casing is of hardened steel and damage to drills may result. Remove the faceplate of the Front No. 10 and dispose of it locally to the best advantage. Dispose of the lining, lock and remainder of the front as rubbish and not as scrap metal. The local supervising officer should issue a destruction certificate (see par. 21) for the lock to the Chief Clerk (Clerical Divn.). The remainder of the cash compartment should be rebuilt by fitting a new lining (N.R.B. Part No. 1/DGU/65 item code No. 460044) and Front No. 10. Part No. 1/DGU/65 should only be requisitioned when required and not held in Section or Normal Stocks.

18. Locks No. 6M fitted to Boxes, C.C., No. 14D and No. 16B.—When forcible removal of a Lock No. 6M fitted to a pre-pay-on-answer coin box is necessary, refer the case to the Clerical Divn. who will obtain the services of a locksmith.

19. Locks No. 15....—Should the lock fitted to a cash container become jammed, drill off the rivetted ends of the lock mounting studs and prise the lid off. Remove the lock and obtain a replacement, see par. 11. Obtain a new lid on maintenance exchange.

20. Mechanism compartment locks.—Should the lock fitted to the cover of a Boxes, C.C., No. 705 become jammed, remove it by the method described in D 5010, with all other types of coin box it is necessary to lever off the front. Lever off Fronts No. 11 from the top; the lever being inserted between the lip in the case and the front and then the lever pulled forward. Lever off other types of fronts from the bottom.

21. Destruction certificates.—Destruction certificates for locks should be made out locally in the following form and signed by an officer of rank not lower than Inspector.

The Chief Clerk

This is to certify that the Lock No. 6M removed from .....
(insert exchange and number of coin box) has been destroyed in my presence, and disposed of, in accordance with E.I. TELEPHONES, Call Offices, D 3005.

Signature Rank

Duty Code

Date

22. Destruction of locks and keys.—Defective Locks Nos. 6M, 14... and 15... and Keys, Lock, Nos. 6M, 14... and 15... must not be returned to the Supplies Dept. and the Eng. Divn. will therefore at the request of the Clerical Divn. destroy faulty items and issue destruction certificates similar to that described in par. 21. To effectively destroy locks and keys it is essential that the levers, tumblers or key steps are mutilated so that their dimensions cannot be used to construct keys. Dispose of keys and lock levers as follows. Dispose of all other parts as scrap metal.

To destroy a Lock No. 6M or No. 15... dismantle the lock and remove the levers. Dispose of the levers in a solid-fuel furnace, if available, or after thoroughly mutilating them, dispose of them as rubbish.

To destroy a Lock No. 14... dismantle the lock and using a hammer and suitable drift, drive the cylinder out of the barrel from the rear. Alternatively, clamp the lock in a vice and drill a hole in the barrel as described in par. 16.

To destroy keys dispose of them in a solid-fuel furnace or clamp them in a vice and mutilate the stepped part, using a hammer and cold chisel, then dispose of them as rubbish.

References:—A 5902, D 3003, D 3004, D 3902, D 5010
(S1/2) STORES, Workmen's Procedure, P 0011
WORKS, Execution, C 0016

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