

See TI C3 & 7004
 65 S 5227

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CALL OFFICE INSTALLATIONS IN S.T.D. AREAS

Functional Tests of Boxes, Coin-collecting, No. 705

[Maintenance Routine Instruction (M.R.I.) No. S 227]

1. General.—This Instruction details the tests to be applied to Box, Coin-collecting, No. 705 and its associated Mechanism No. 20.

2. Application of functional tests.—The tests should be made after

(a) the inspections detailed in S 5223 and S 5231 (M.R.I.s Nos. S 223 and S 231) have been performed and

(b) when a mechanism has been changed.

When a fault is revealed, followed by remedial action on site, the appropriate tests should be re-applied to ensure that the defect has been removed.

The tests should also be applied after the installation of a circuit has been completed and before it is handed over for service. Adjustments to the telephone apparatus which may prove necessary as a result of the tests should be made in accordance with TELEPHONES, Call Offices, D 5010. Adjustments to the mechanism should not be attempted on site. A faulty mechanism should be replaced and returned to a C.C.B. Maintenance Centre for attention. If a spare is not readily available, adapt the telephone to give emergency service by means of the 'Emergency' label and connector.

TABLE 1. TESTS TO BE APPLIED WHEN TESTING FACILITIES WITH A TEST DESK ARE AVAILABLE

Test	Operation by officer at C.C.B.	Operation by officer at T.D.	Conditions if equipment is free of faults
(1) Circuit operation on assistance call	Lift handset and listen for dial tone. Call test desk by dialling non-metering code if available or otherwise via '100'	—	Test desk officer answers
(2) Insulation resistance	Ask testing officer for co-operation and replace handset	Establish testing connexion to C.C.B. line	—
	Co-operate with testing officer	Test insulation of circuit	Insulation is above the limits specified in L 5106
(3) Transmission	Co-operate with testing officer	Verify, by speaking, that transmission and reception are satisfactory	—
(4) Ringing of bell	Co-operate with testing officer	Connect ringing supply to line	Bell rings satisfactorily
(5) Check of dial pulses and speed (and ratio)	Dial digits under direction of testing officer	Check the dial speed and digits received on tester (also check pulse ratio if suitable test equipment is available)	Dial speed 9–11 p.p.s. Correct digits registered on tester. (Pulse ratio 63–70% break)

TABLE 1 (contd.)

Test	Operation by officer at C.C.B.	Operation by testing officer	Conditions if equipment is free of faults
(6) SU slot unlocking and 6d. coin pulsing	Co-operate with testing officer	Bring P.O.A.C.B. testing circuit into test cord circuit	—
	Press a coin/token against coin rollers	Wait on line	Coin/token cannot be inserted
	Release pressure against coin rollers	Apply slot unlocking conditions	Slots unlock
	Insert 6d. coin/token. Check that receiver is shunted during coin pulses	Listen for two pulses of N.U. tone	Two pulses of N.U. tone received by officer at T.D. No transmission during coin pulsing
(7) Mechanical slot-locking and 1s. coin pulsing	Partially insert and hold 1s. coin/token in slot and attempt to insert 3d. coin/token	Wait on line	3d. coin/token cannot be inserted
	Release pressure against coin rollers	—	—
	Complete the insertion of 1s. coin/token, and before mechanism restores to normal attempt to insert another coin/token	Listen for four pulses of N.U. tone	Four pulses of N.U. tone received by officer at T.D. Second coin/token cannot be inserted. No transmission during coin pulsing
	Release pressure against coin rollers	—	—
(8) 3d. coin pulsing	Insert 3d. coin/token	Listen for one pulse of N.U. tone	One pulse of N.U. tone received by officer at T.D. No transmission during coin pulsing
(9) SU slot locking	Replace receiver	Clear down	—
	Press coins/tokens against coin rollers of appropriate slots	—	Coins/tokens cannot be inserted

TABLE 2. TESTS TO BE APPLIED WHEN TEST DESKS ARE UNSTAFFED AND A SUBSCRIBERS' APPARATUS AND LINE TESTER IS AVAILABLE

Test	Operation by officer at C.C.B.	Conditions if equipment is free of faults
(1) Insulation, ringing of bell, loop resistance, dial (Faults indicated by announcement; if bell fails to ring, wait 5 sec. before lifting receiver)	Lift handset, listen for dial tone, then dial S.A.L.T. access code followed by number of C.C.B.	'Start test' announced
	Replace handset	Bell rings (allow to complete two periods of ringing)
	Lift handset	Dial tone heard
	Dial 1	Dial tone heard
	Dial 3	Dial tone heard
	Dial 0	Dial tone heard
	Dial 5	'Testing O.K.' announced
	Replace handset	—
(2) Operation of circuit on assistance call	Lift handset, listen for dial tone, then dial 100	Operator answers
(3) Transmission	Verify, by speaking to operator, that transmission and reception are satisfactory	—
(4) SU slot unlocking and 6d. coin pulsing	Press a coin/token against coin rollers	Coin/token cannot be inserted
	Ask operator to operate momentarily the ring answer key and to verify receipt of coin pulses	—
	Release pressure against coin rollers	—
	Insert 6d. coin/token and check that receiver is shunted during coin pulses	Operator hears two pulses of N.U. tone. No transmission during coin pulsing
(5) Mechanical slot locking and 1s. coin pulsing	Partially insert and hold 1s. coin/token in slot and attempt to insert 3d. coin/token	3d. coin/token cannot be inserted
	Release pressure against coin rollers	—
	Complete the insertion of 1s. coin/token, and before mechanism restores to normal attempt to insert another coin/token	Operator hears four pulses of N.U. tone. Second coin/token cannot be inserted. No transmission during coin pulsing
	Release pressure against coin rollers	—

TABLE 2 (contd.)

Test	Operation by officer at C.C.B.	Conditions if equipment is free of faults
(6) 3d. coin pulsing	Insert 3d. coin/token	Operator hears one pulse of N.U. tone. No transmission during coin pulsing
(7) SU slot locking	Ask operator to clear down. Replace receiver	—
	Press coins/tokens against coin roller of appropriate slots	Coins/tokens cannot be inserted

TABLE 3. TESTS TO BE APPLIED WHEN TESTING FACILITIES WITH A TEST DESK OR A SUBSCRIBERS' APPARATUS AND LINE TESTER ARE NOT AVAILABLE

Test	Operation by testing officer	Conditions if equipment is free of faults
(1) Insulation resistance	An overall insulation test of line and apparatus should be made before the visit to the call office	Insulation is above the limits specified in L 5106
(2) Functioning of dial	A rough dial speed test should be made by comparison with a spare dial (see TELEPHONES, Auto., B 5002). The dial should be changed if it is obviously outside the range of 9-11 p.p.s. or is suspected of being faulty as a result of wrong numbers being obtained in subsequent tests	—
	Dial the exchange number of the call office installation	Busy tone received
	Clear down	—
(3) Operation of circuit on assistance call	Lift handset, listen for dial tone, then dial 100	Operator answers
(4) Transmission	Verify, by speaking to operator, that transmission and reception are satisfactory	—

TABLE 3 (contd.)

Test	Operation by testing officer	Conditions if equipment is free of faults
(5) SU slot unlocking and 6d. coin pulsing	Press a coin/token against coin rollers	Coin/token cannot be inserted
	Ask operator to operate momentarily the ring answer key and to verify receipt of coin pulses	—
	Release pressure against coin rollers	—
	Insert 6d. coin/token and check that receiver is shunted during coin pulses	Operator hears two pulses of N.U. tone. No transmission during coin pulsing
(6) Mechanical slot locking and 1s. coin pulsing	Partially insert and hold 1s. coin/token in slot and attempt to insert 3d. coin/token	3d. coin/token cannot be inserted
	Release pressure against coin rollers	—
	Complete the insertion of 1s. coin/token, and before mechanism restores to normal attempt to insert another coin/token	Operator hears four pulses of N.U. tone. Second coin/token cannot be inserted. No transmission during coin pulsing
	Release pressure against coin rollers	—
(7) 3d. coin pulsing	Insert 3d. coin/token	Operator hears one pulse of N.U. tone. No transmission during coin pulsing
(8) Ringing of bell	Ask operator to make a call to C.C.B. line. Replace receiver	Bell rings satisfactorily
(9) SU slot locking	Press coins/tokens against coin rollers of appropriate slots	Coins/tokens cannot be inserted

References:—L 5106, S 5223, S 5231
(TPM 2/2) TELEPHONES, Automatic, B 5002
" Call Offices, D 5010

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