

LOOP DIALING COIN CONTROL SELECTORS
OPERATION TESTS
USING TEST SET SD-30387-01 (J34713A) OR ES-30007-01 (X61341)
STEP-BY-STEP SYSTEMS

1. GENERAL

1.01 This section describes a method of testing coin control selectors together with the coin control features of the associated coin toll transmission selectors, using the wagon-type toll train and coin box trunk test set SD-30387-01 or ES-30007-01.

1.02 This section is reissued to incorporate material from the addendum in its proper location. In this process marginal arrows have been omitted.

1.03 The tests covered are:

(A) Coin Return - Loop: This test checks the ability of a coin control selector to follow dial pulses under a loop condition and checks the coin return function of a coin control selector together with an associated toll transmission selector.

(B) Coin Collect - Leak: This test checks the ability of a coin control selector to follow dial pulses under a leak condition and checks the coin collect function of a coin control selector together with an associated toll transmission selector.

1.04 These tests are based upon the use of a connector test line (99) terminal. The particular test line terminal selected shall be one which can be reached by dialing from the test jacks of the transmission selector being tested.

1.05 This section does not include tests to levels serving level hunting connectors.

1.06 The test set connections should be changed sufficiently often during these tests so that at the completion of the tests every toll transmission selector and every coin control selector will have been tested.

1.07 All keys, lamps and jacks referred to are located on the test set, unless otherwise specified.

1.08 These tests, when conducted on a routine basis, should be made during a period of light traffic and on days other than peg count days.

1.09 Local instructions should be followed with reference to recording any traffic register operations caused by performing these tests.

1.10 Earth potential keys are provided in order to simulate the earth potential conditions which might be encountered in service. A 10-volt positive or negative potential can be inserted in the coin ground lead by the operation of the POS-EP or NEG-EP key, respectively. The coin ground potential of the test set can be increased to 20 volts positive by the operation of the EP + 20 key. The correct voltage of the test set earth potential battery is essential in the performance of these tests.

1.11 Wherever the operation of the STP, or RLS key, or the dial is called for, it is understood that either the STP, or RLS key, or the dial, of the test set, or the STP (No. 1), or RLS (No. 3) key, or the dial, of the remote control test set is meant, depending upon whether or not the remote control test set is being used.

1.12 The test equipment specified in this section is designed to apply proper marginal tests (simulated critical circuit conditions) when the circuit under test and the test equipment have an applied voltage of 48.5 to 50. In those offices where power plants are normally operated at more than 50 volts, the battery voltage should be reduced and maintained within the required limits while the tests are being made.

1.13 Lettered Steps: The letters a, b, c, etc., are added to a step number to indicate that the step covers an action which may or may not be required, depending on local conditions. The conditions upon which a lettered step or series of steps should be made are given in the action column and all steps governed by the same condition are designated by the same letter. When a condition does not apply, the associated steps should be omitted.

2. APPARATUS

2.01 Coin Box Trunk and Loop Dialing Toll Train Test Set J34713A (SD-30387-01) or X61341 (ES-30007-01).

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- 2.02 Patching Cords - Four P3E Cords, 6 feet long, each equipped with two No. 310 Plugs (3P7A Cords) - for use in patching test line jacks at transmission selector frame to test set jacks.
- 2.03 Patching Cord - P3C Cord, 10 feet long, equipped with one No. 310 Plug and one No. 240A Plug (3P2A) - for use in patching test line jack 5 at coin control selector frame to the test jack of coin control selector under test.
- 2.04 Patching Cord - P4K Cord, 10 feet long, equipped with one No. 289A Plug and one No. 240B Plug (4P4A Cord) - for use in patching TST jack of test set to test jack of toll transmission selector under test.
- 2.05 Operator Telephone Set.
- 2.06 No. 40B (or No. 40A) Test Set (remote control) (optional).

3. PREPARATION

ALL TESTS

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
1	At the originating end, make busy, in the approved manner, the trunks associated with the coin control and toll transmission selectors under test.	
2a	If the toll switchboard and step-by-step office are not in the same building, at the main distributing frame, remove the heat coils from the coin control trunk to clear the coin control selector of the trunk conductors.	
3b	If the toll switchboard and the step-by-step office are in the same building and no heat coils are provided, the tip and ring of the coin control trunk shall be cleared by insulating the contacts of relay D which connect battery and ground to the tip and ring.	
4	Connect test set jacks 2, 3, 4 and 6A to the correspondingly numbered test line jacks 2, 3, 4 and 6 on transmission selector frame, using P3E cords. <u>Note:</u> When more than one set of test line jacks 3 and 4 is available, the set selected shall be one which is multiplied to the same connector group in which the test line number to be dialed appears.	
5	Connect operator telephone set to TEL jack of test set.	
6c	If the remote control test set is to be used, insert the red, gray and black plugs into the test set EXT jacks R, G and B, respectively.	
7	Set the dials of the 509A resistance panel at zero.	

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
8	Insert No. 289B plug of P4K cord into TST jacks of test set (with clamping bar of plug to the right).	
9	Operate TS-OUT, or T-SEL-OUT, key.	
10	Connect test line jack 5 at coin control selector frame to coin control selector under test, using P3C cord.	

4. METHOD

<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
11	If the transmission selector to be tested is normal, operate and hold RLS key and insert No. 240B plug of P4K cord into test jack of selector.	GRD, or GUARD, lamp does not light. Note: If the transmission selector is busy the GRD, or GUARD, lamp will light, in which case remove No. 240B plug. Otherwise, proceed with test.
12	Restore RLS key.	GRD, or GUARD, lamp lights.
13	Operate and release STP key to advance test circuit to WR, or PTR, position.	WR, or PTR, lamp lights.
14d	If testing transmission selector arranged to absorb the initial digit on the level corresponding to the initial digit of the test line number being dialed, dial the absorbed digit.	Selector steps to level dialed and releases.
15	Dial connector test line number.	BSY, or BUSY, and SUPV lamp lights. Note: If BSY, or BUSY, lamp does not light, it is an indication that connector is ringing on another terminal. In this case remain on connection for a short time and if a subscriber or an operator answers, advise that a test is being made.
16	Operate CBT-AR key.	C-TRK, or COIN TRK, lamp lights, SUPV lamp is extinguished.

(A) Coin Return - Loop

17	Operate CBF, C-SW or COIN-SW, and NEG-EP keys.	
18	Dial number of trunk associated with transmission selector under test.	Coin control selector steps to bank terminal connected to transmission selector under test.
19	Operate and release CR, or COIN-RET, key.	CR, or COIN-RET, and SUPV lamps light. High tone (coin return) is heard in receiver.
20	Restore CBF key.	CR, or COIN-RET, and SUPV lamps are extinguished and tone is removed.

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<u>STEP</u>	<u>ACTION</u>	<u>VERIFICATION</u>
21	Restore C-SW or COIN-SW, and NEG-EP key.	Coin control selector releases.
22e	If no other tests are to be made, restore CBT-AR key and momentarily operate RLS key.	GRD, or GUARD, lamp flashes. Toll transmission selector releases.
23e	Remove all test connections and restore busied trunks to service by removing busy-ing conditions and replacing heat coils or removing D relay insulation.	
<u>(B) Coin Collect - Leak</u>		
17	Operate and release ST key.	
18	Operate C-SW or COIN-SW, CCS-CL or CCSW-CL, and CCS-LK or CCSW-LK keys.	
19	Operate POS-EP key.	
	<u>Note:</u> If local earth potential conditions exceed 10 volts positive potential, operate EP + 20V key in addition to POS-EP key.	
20	Dial number of trunk associated with transmission selector under test.	Coin control selector steps to bank terminal connected to transmission selector under test.
21	Operate and hold CC, or COIN-COL, key.	CC, or COIN-COL, lamp flashes once and low tone (coin collect) is heard in receiver. SUPV lamp lights.
22	Release CC, or COIN-COL, key.	SUPV lamp is extinguished and tone is removed.
23	Restore C-SW or COIN-SW, CCS-CL or CCSW-CL, CCS-LK or CCSW-LK, POS-EP, and EP+20V keys.	Coin control selector releases.
24e	If no other tests are to be made, restore CBT-AR key and momentarily operate RLS key.	GRD, or GUARD, lamp flashes. Toll transmission selector releases.
25e	Remove all test connections and restore busied trunks to service by removing busy-ing conditions and replacing heat coils or removing D relay insulation.	