

**LOCAL COIN OVERTIME AND STUCK COIN
OUTGOING TRUNK CIRCUIT (SD-2H113)—TESTS
NO. 2 AND NO. 2B ELECTRONIC SWITCHING SYSTEMS**

1. GENERAL

1.01 This section describes the method of testing the local coin overtime and stuck coin outgoing trunk circuit SD-2H113 used in the No. 2 and No. 2B Electronic Switching Systems (ESS).

1.02 This section is reissued to cover the No. 2B ESS.

1.03 The following tests will be performed:

A. Circuit State and Scan Point Operation:

This test verifies the operation of the circuit relays and the saturation of the ferrod sensors associated with the outgoing trunk circuit.

B. Transmission Loss Measurements: This test verifies the transmission loss of the outgoing trunk circuit.

1.04 The outgoing trunk circuit tests are performed on a periodic basis as prescribed by the equipment test list or when a malfunction of the circuit is suspected.

1.05 The tests will be performed from the trunk test panel (TTP) in conjunction with the maintenance display buffer and teletypewriter (TTY). For detailed information about the TTP and its operation, refer to Section 232-130-301, Trunk Test Panel—Method of Operation.

1.06 The keys on the TTP may be either a locking or a nonlocking type. In order to differentiate between the two types of keys, the use of a locking type key shall be identified by the words "operate" and "release" and the use of a nonlocking type key shall be identified by the word "depress" in the ACTION column.

Note: Nonlocking keys require a depression of at least one-half second to ensure system recognition.

1.07 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 3 or 4 of this section indicates an action which may or may not be required depending on local conditions. The condition under which a lettered step or series of lettered steps should be made is given in the ACTION column and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.

1.08 Whenever the term TOUCH-TONE® telephone service is used, it refers to the equipment required to provide this service to the customer.

2. APPARATUS

Note: Equivalent apparatus may be substituted.

2.01 Two 500- or 2500-type telephone sets.

2.02 Two 2P4A cord assemblies consisting of a P2B cord 3 feet long and two 310 plugs.

2.03 Two 2W6A cord assemblies consisting of a W2C cord 10 feet long with a 310 plug on one end and two 59-type cord tips on the other.

2.04 One 262C-type (900 ohm) plug.

2.05 Transmission measuring set (TMS), 23D. Equivalent apparatus must be capable of measuring power in 900-ohm circuits at 1 kHz. The accuracy must be ± 0.1 dB from -15 dBm to $+10.0$ dBm at 1 kHz.

Note: This item will not be required if the TTP is equipped with a TMS.

NOTICE

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3. PREPARATION

3.01 Refer to the office records to obtain the following information about the circuit to be tested:

- (a) member number (MEMN) of the controlling port (port 0)
- (b) supervisory scan point number (SPN)
- (c) directed scan point number (DSP)
- (d) the protector block assignment for ports 0 and 1 of the outgoing trunk circuit at the protector frame.

The trunk group number (TGN) of the controlling port (port 0) is 62.

Note: When the trunk enters the office through carrier equipment, it will not appear at the protector frame.

3.02 Verify the scan point numbers obtained from the office records as follows:

At maintenance TTY, type in:

A VY:SVC:aaa bbb!

aaa = 062

bbb = MEMN

All Tests

STEP	ACTION	VERIFICATION
1	At telephone set on TTP— Operate access trunk 1 key.	At telephone set— Access trunk 1 lamp lighted. At ACCESS TRUNK 1 CONTROL— SUPV lamp lighted. At TEL CKT— TRFR lamp lighted if TRFR key is operated.
2	Lift handset off-hook, or operate TRFR key at TEL CKT on TTP if using headset.	At ACCESS TRUNK 1 CONTROL— EQPT ST lamp lighted steadily or flashing at a rate of 120 interruptions per minute. At MISC TEST CONTROL— P & E lamp lighted if connection was successful.
3	At TOUCH-TONE dial— Dial 1 + TGN + MEMN + ST.	

The system will respond by giving TGN and MEMN for both ports, SPN and DSP as follows:

AR VY SVC 062 bbb

DSP ss rrbb
SPN ss rrbb
TRK 064 bbb

ss = scanner number

rr = scanner row

bb = bit in row

The bb bit represents the first ferrod sensor (0 for SPN and 2 for DSP) in the scanner row that is associated with the specific circuit. All other ferrod sensors assigned to the same circuit follow in consecutive order (0 and 1 for SPN or 2, 3, 4, and 5 for DSP). Refer to the output message manual (OM-2H200) for explanation of other data fields, if required.

3.03 The following is a step-by-step procedure to make the outgoing trunk circuit traffic busy and connect it to the TTP (Fig. 1).

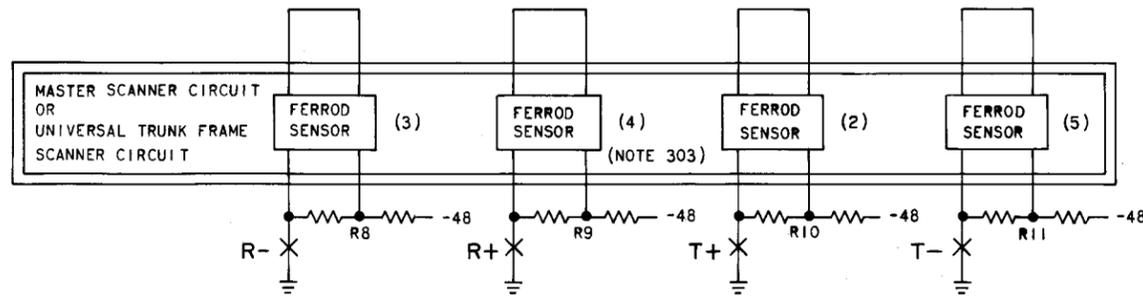
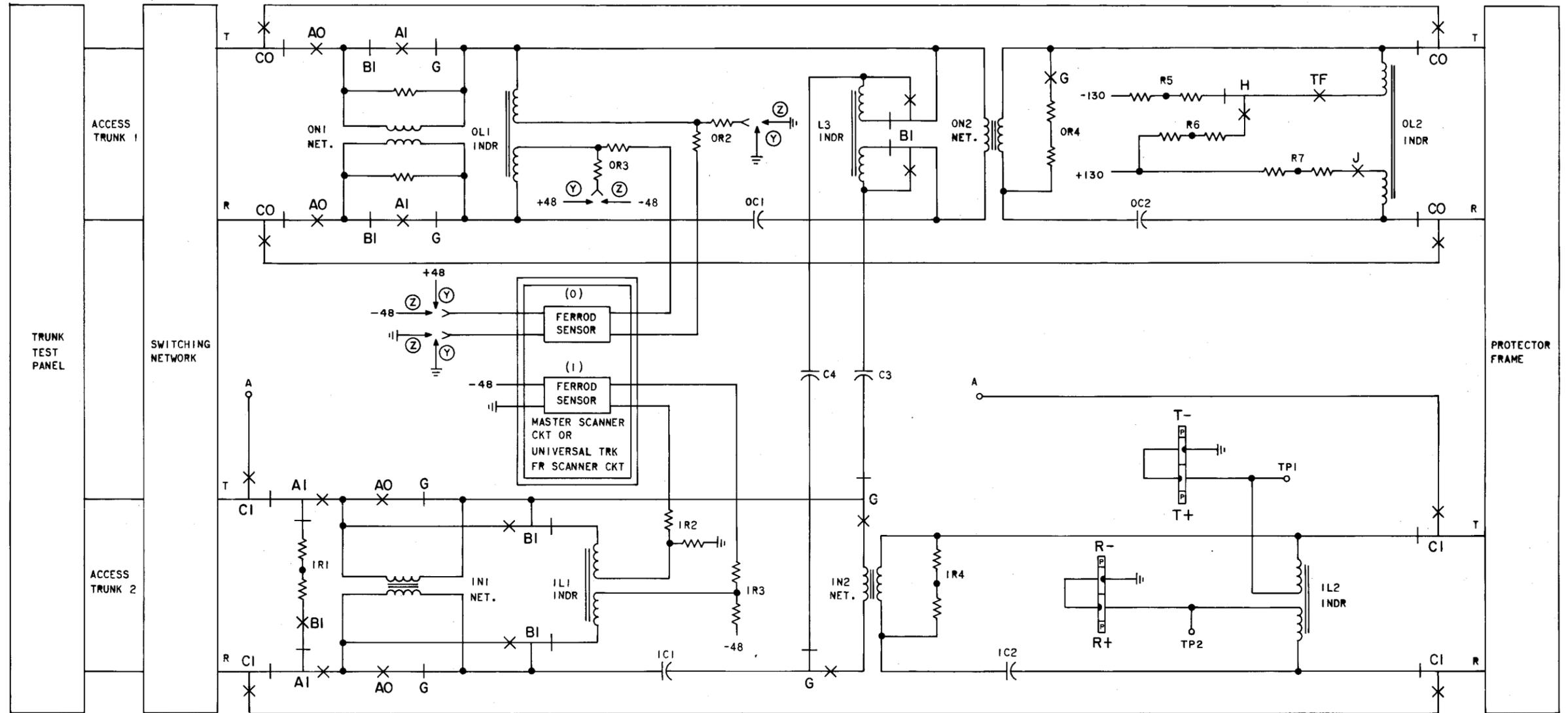


Fig. 1—Outgoing Trunk Circuit (SD-2H113)

STEP	ACTION	VERIFICATION
		Note: If the EQPT ST lamp is flashing and the P & E lamp is not lighted steadily, the TTP is not connected to the circuit to be tested.
4a	If the P & E is not lighted steadily— At ACCESS TRUNK 1 CONTROL— Depress RLS key.	
5a	Repeat Steps 3 and 4a until connection is successful.	
6	Place handset on-hook, or release TRFR key.	At telephone set— Access trunk 1 lamp extinguished. At TEL CKT— TRFR lamp extinguished.
7	Repeat Steps 1 through 6 for <i>access trunk 2</i> using TGN 064 and the MEMN (bbb) obtained in 3.02 for the noncontrolling port, <i>port 1</i> .	

4. METHOD

4.01 If the verification procedure fails or if a malfunctioning circuit is indicated during any part of these tests, proceed as follows.

- (1) Discontinue the test.

- (2) Troubleshoot the circuit which failed.
(3) Replace faulty circuit components using standard repair procedures.
(4) Repeat the test that failed. If verification is successful, continue the test.

A. Circuit State and Scan Point Operation

STEP	ACTION	VERIFICATION
8	Use the TTY printout from 3.02 to determine the trunk scanner and number of the scanner row of the SPN. The SPN is associated with ferrod sensors 0 and 1 of the outgoing trunk circuit.	
9	At maintenance TTY— ◆For No. 2 ESS offices type in:◆ UBRL TS:RSN:ssrr! ss = Number of trunk scanner for SPN in decimal (0-11) from Step 8. rr = Number of scanner row for SPN in decimal (0-63) from Step 8. ◆For No. 2B ESS offices type in: MON:TSSN ssrr;RDT LAMPS! ss = Number of trunk scanner for SPN in decimal (0-11) from Step 8. rr = Number of scanner row for SPN in	At DISPLAY BUFFER— Scanner row containing specific scan points displayed on DISPLAY BUFFER lamps. Lamps associated with ferrod sensors connected to circuit under test lighted.

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STEP	ACTION	VERIFICATION
	decimal (0-63) from Step 8. RDT LAMPS = Direct the result to the DISPLAY BUFFER.⚡	
10	At ACCESS TRUNK 1 CONTROL— Depress VM key.	At ACCESS TRUNK 1 CONTROL— VM lamp lighted. At VOLTMETER CONTROL— 100K lamp lighted. At VOLTMETER— Meter indicates 0.
11	At VOLTMETER CONTROL— Operate TR REV key.	At VOLTMETER CONTROL— TR REV lamp lighted. At VOLTMETER— Meter indicates 0.
12	Depress FEMF key.	At VOLTMETER CONTROL— FEMF lamp lighted. 100K lamp extinguished. At VOLTMETER— Meter indicates 0.
13b	If office is <i>not</i> equipped with dial tone first option— Release TR REV key.	At VOLTMETER CONTROL— TR REV lamp extinguished. At VOLTMETER— Meter indicates 0.
14	Depress MET VM key.	At VOLTMETER CONTROL— FEMF lamp extinguished. MET VM lamp lighted. At VOLTMETER— Meter indicates 0.
15	Set PD GROUP switch to 0-5 position.	
16	At PERIPHERAL DECODER POINTS— Operate 0 key.	At PERIPHERAL DECODER POINTS— 0 lamp lighted.
17	Depress AT 1 key.	At VOLTMETER— Meter indicates between 42.75 and 52.50 volts on 120-volt scale. At circuit under test— Relay A0 operated.
18	At ACCESS TRUNK 1 CONTROL— Depress HOLD key.	At ACCESS TRUNK 1 CONTROL— HOLD lamp lighted. At VOLTMETER CONTROL— MET VM lamp extinguished. At VOLTMETER— Meter indicates 0.

STEP	ACTION	VERIFICATION
19c	If office is equipped with dial tone first option— Release TR REV key.	TR REV lamp extinguished.
20	At ACCESS TRUNK 2 CONTROL— Depress VM key.	At ACCESS TRUNK 2 CONTROL— VM lamp lighted. At VOLTMETER CONTROL— 100K lamp lighted. At VOLTMETER— Meter indicates 0.
21	At VOLTMETER CONTROL— Operate TR REV key.	At VOLTMETER CONTROL— TR REV lamp lighted. At VOLTMETER— Meter indicates 0.
22	Depress FEMF key.	At VOLTMETER CONTROL— FEMF lamp lighted. 100K lamp extinguished. At VOLTMETER— Meter indicates 0.
23	Release TR REV key.	At VOLTMETER CONTROL— TR REV lamp extinguished. At VOLTMETER— Meter indicates 0.
24	Depress MET VM key.	At VOLTMETER CONTROL— FEMF lamp extinguished. MET VM lamp lighted. At VOLTMETER— Meter indicates 0.
25	Set PD GROUP switch to 6-11 position.	
26	Depress AT 1 key.	At VOLTMETER— Meter indicates between 42.75 and 52.50 volts on 120-volt scale. At circuit under test— Relay A1 operated. Relays A0 remains operated.
27	At PERIPHERAL DECODER POINTS— Release 6 key. Operate 7 key.	At PERIPHERAL DECODER POINTS— 6 lamp extinguished. 7 lamp lighted.
28	Depress AT 1 key.	At VOLTMETER— Meter indicates 0. At circuit under test— Relay A1 released. Relay B1 operated. Relay A0 remains operated.

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STEP	ACTION	VERIFICATION
29	At VOLTMETER CONTROL— Depress 1K key. Operate GRD key.	At VOLTMETER— Meter indicates between 9.4 and 10.6 volts on 24-volt scale. At VOLTMETER CONTROL— MET VM lamp extinguished. 1K lamp lighted. GRD lamp lighted.
30	At VOLTMETER CONTROL— Release GRD key. Depress MET VM key.	At VOLTMETER— Meter indicates 0. At VOLTMETER CONTROL— GRD lamp extinguished. 1K lamp extinguished. MET VM lamp lighted.
31	At front of writing shelf— Connect test telephone sets to ACCESS TRK-1 jack and ACCESS TRK-2 jack.	
32	Identify test set connected to ACCESS TRK-1 jack as test phone A and ACCESS TRK-2 jack as test phone B.	
33	At PERIPHERAL DECODER POINTS— Release 7 key. Operate 6 key.	At PERIPHERAL DECODER POINTS— 7 lamp extinguished. 6 lamp lighted.
34	Depress AT 1 key.	At circuit under test— Relay B1 released. Relay A1 operated. Relay A0 remains operated.
35	Lift test phones A and B off-hook.	At DISPLAY BUFFER— Lamps associated with ferrod sensors 0 and 1 extinguished. At test phones A and B— Conversation possible between test phone A and test phone B.
36	At PERIPHERAL DECODER POINTS— Operate 7 key.	
37	Depress AT 1 key.	At DISPLAY BUFFER— Lamp associated with ferrod sensor 1 lighted. Lamp associated with ferrod sensor 0 remains extinguished. At test phone A and B— Conversation possible from test phone A to test phone B, but not possible from test phone B to test phone A. At circuit under test—

STEP	ACTION	VERIFICATION
38	At PERIPHERAL DECODER POINTS— Release 7 key.	Relay B1 operated. Relays A0 and A1 remain operated. At PERIPHERAL DECODER POINTS— 7 lamp extinguished.
39	Depress AT 1 key.	At DISPLAY BUFFER— Lamp associated with ferrod sensor 1 extinguished. Lamp associated with ferrod sensor 0 remains extinguished. At circuit under test— Relay B released. Relays A0 and A1 remain operated.
40	At PERIPHERAL DECODER POINTS— Operate 11 key.	At PERIPHERAL DECODER POINTS— 11 lamp lighted.
41	Depress AT 1 key.	At DISPLAY BUFFER— Lamp associated with ferrod sensor 0 lighted. Lamp associated with ferrod sensor 1 remains extinguished. At circuit under test— Relay C0 operated. Relays A0 and A1 remain operated.
42	At PERIPHERAL DECODER POINTS— Release 11 key. Operate 8 key.	At PERIPHERAL DECODER POINTS— 11 lamp extinguished. 8 lamp lighted.
43	Depress AT 1 key.	At DISPLAY BUFFER— Lamp associated with ferrod sensor 0 extinguished. Lamp associated with ferrod sensor 1 lighted. At circuit under test— Relay C0 released. Relay C1 operated. Relays A0 and A1 remain operated.
44	At PERIPHERAL DECODER POINTS— Release 6 and 8 keys.	At PERIPHERAL DECODER POINTS— 6 and 8 lamps extinguished.
45	Depress AT 1 key.	At DISPLAY BUFFER— Lamp associated with ferrod sensor 0 remains extinguished. Lamp associated with ferrod sensor 1 remains lighted. At circuit under test— Relays A1 and C1 released. Relay A0 remains operated.
46	At maintenance TTY— ◆For No. 2 ESS offices type in:◆ UB SY:CLB!	Ferrod sensor display removed from DISPLAY BUFFER.

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STEP	ACTION	VERIFICATION
	<p>◆For No. 2B ESS offices type in! STOP:UTIL!◆</p>	
47	<p>Use the TTY printout from 3.02 to determine the trunk scanner and number of the scanner row of the DSP. The DSP is associated with ferrod sensors 2, 3, 4, and 5 of the outgoing trunk circuit.</p>	
48	<p>At maintenance TTY— ◆For No. 2 ESS offices type in:◆ UBRL TS:RSN:ssrr! ss = Number of trunk scanner for DSP in decimal (0-11) from Step 47. rr = Number of scanner row for DSP in decimal (0-63) from Step 47.</p> <p>◆For No. 2B ESS offices type in: MON:TSSN ssrr:RDT LAMPS! ss = Number of trunk scanner for DSP in decimal (0-11) from Step 47. rr = Number of scanner row for DSP in decimal (0-63) from Step 47. RDT LAMPS = Direct the result to the DISPLAY BUFFER.◆</p>	
49	<p>Establish a connection to the switchboard from the local office to perform the following tests. Advise operator that a test is being conducted and her assistance is required.</p>	
50	<p>At PERIPHERAL DECODER POINTS— Operate 10 key.</p>	<p>At PERIPHERAL DECODER POINTS— 10 lamp lighted.</p>
51	<p>Depress AT 1 key.</p>	<p>At switchboard— Operator alerted with a rate 1 signal. At test phone A— Conversation possible from test phone A to operator. At circuit under test— Relay TF operated. Relay A0 remains operated.</p>
52	<p>At PERIPHERAL DECODER POINTS— Release 10 key.</p>	<p>At PERIPHERAL DECODER POINTS— 10 lamp extinguished.</p>
53	<p>Depress AT 1 key.</p>	<p>At circuit under test— Relay TF released. Relay A0 remains operated.</p>
54	<p>Set PD GROUP switch to 0-5 position.</p>	

STEP	ACTION	VERIFICATION
55	At PERIPHERAL DECODER POINTS— Operate 5 key.	At PERIPHERAL DECODER POINTS— 5 lamp lighted.
56	Depress AT 1 key.	At switchboard— Operator receives an off-hook supervisory signal. At circuit under test— Relay A0 released. Relay J operated.
57	At PERIPHERAL DECODER POINTS— Release 5 key.	At PERIPHERAL DECODER POINTS— 5 lamp extinguished.
58	Depress AT 1 key.	At switchboard— Operator receives an on-hook supervisory signal. At circuit under test— Relay J released.
59	At switchboard— Request operator to send a coin collect signal.	At DISPLAY BUFFER— Lamps associated with ferrod sensors 2 and 4 extinguished. At circuit under test— Relays T+ and R+ operated.
60	Request operator to release coin collect signal.	At DISPLAY BUFFER— Lamps associated with ferrod sensors 2 and 4 lighted. At circuit under test— Relays T+ and R+ released.
61	At PERIPHERAL DECODER POINTS— Operate 4 key.	At PERIPHERAL DECODER POINTS— 4 lamp lighted.
62	Depress AT 1 key.	At circuit under test— Relay H operated.
63	Set PD GROUP switch to 6-11 position.	
64	Depress AT 1 key.	At switchboard— Operator receives a "coin in coin box" signal. At circuit under test— Relay TF operated. Relay H remains operated.
65	Set PD GROUP switch to 0-5 position.	
66	At PERIPHERAL DECODER POINTS— Release 4 key.	At PERIPHERAL DECODER POINTS— 4 lamp extinguished.
67	Depress AT 1 key.	At switchboard— Operator DOES NOT receive "coin in coin

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STEP	ACTION	VERIFICATION
		<p>box" signal.</p> <p>If office is arranged for overtime monitoring— Operator receives "overtime monitoring" signal. At circuit under test— Relay H released. Relay TF remains operated.</p>
68	Set PD GROUP switch to 6-11 position.	
69	Depress AT 1 key.	<p>If office is arranged for overtime monitoring— Operator DOES NOT receive "overtime monitoring" signal. At circuit under test— Relay TF released.</p>
70d	<p>If office IS NOT arranged for local coin overtime— Request operator to send a coin return signal.</p>	<p>At DISPLAY BUFFER— Lamps associated with ferrod sensors 2 and 3 extinguished. At circuit under test— Relays T+ and R+ operated.</p>
71d	Request operator to remove coin return signal and send rering signal.	<p>At DISPLAY BUFFER— Lamps associated with ferrod sensors 2 and 3 lighted. Lamps associated with ferrod sensors 4 and 5 extinguished. At circuit under test— Relays T+ and R- released. Relays T- and R+ operated.</p>
72d	Request operator to remove rering signal.	<p>At DISPLAY BUFFER— Lamps associated with ferrod sensors 4 and 5 lighted. At circuit under test— Relays T- and R+ released.</p>
73e	<p>If office is arranged for local coin overtime— Request operator to send coin collect signal.</p>	<p>At DISPLAY BUFFER— Lamps associated with ferrod sensors 2 and 4 extinguished. At circuit under test— Relays T+ and R+ operated.</p>
74e	Request operator to remove coin collect signal and send a signal split.	<p>At DISPLAY BUFFER— Lamps associated with ferrod sensors 2 and 4 lighted. Lamps associated with ferrod sensors 3 and 5 extinguished. At circuit under test— Relays T+ and R+ released. Relays T- and R- operated.</p>
75e	Set PD GROUP switch to 0-5 position.	

STEP	ACTION	VERIFICATION
76e	At PERIPHERAL DECODER POINTS— Operate 0 and 3 keys.	At PERIPHERAL DECODER POINTS— 0 and 3 lamps lighted.
77e	Depress AT 1 key.	At circuit under test— Relays A0 and G operated. Relays T— and R— remains operated.
78e	Set PD GROUP switch to 6-11 position.	
79e	At PERIPHERAL DECODER POINTS— Release 9 key.	At PERIPHERAL DECODER POINTS— 9 lamp extinguished.
80e	Depress AT 1 key.	At test phone A and B— Conversation possible between operator and test phones A and B. Conversation not possible between test phone A and test phone B. At circuit under test— Relay A1 operated. Relays A0, G, T—, and R— remain operated.
81e	Set PD GROUP switch to 0-5 positions.	
82e	Depress AT 1 key.	At test phone A and B— Conversation possible between test phone A and test phone B. At circuit under test— Relay G released. Relays A0, A1, T—, and R— remain operated.
83e	Request operator to remove signal split.	At DISPLAY BUFFER— Lamps associated with ferrod sensor 3 and 5 lighted. At circuit under test— Relays T— and R— released. Relays A0 and A1 remain operated.
84e	At PERIPHERAL DECODER POINTS— Release 0 key.	At PERIPHERAL DECODER POINTS— 0 lamp extinguished.
85e	Depress AT 1 key.	At circuit under test— Relay A0 released.
86e	Set PD GROUP switch to 6-11 position.	
87e	Depress AT 1 key.	At circuit under test— Relay A1 released.
88	Advise operator that her assistance is no longer required. The connection to the switchboard from the local office established in Step 49 is no longer needed.	

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STEP	ACTION	VERIFICATION
89	At maintenance TTY— ◆For No. 2 ESS offices type in:◆ UB SY:CLB! ◆For No. 2B ESS offices type in: STOP:UTIL!◆	At DISPLAY BUFFER— Scanner row no longer displayed.
90	At front of writing shelf— Disconnect test phones A and B from ACCESS TRK-1 jack and ACCESS TRK-2 jack.	
91	At ACCESS TRUNK 2 CONTROL— Depress RLS key.	At ACCESS TRUNK 2 CONTROL— VM lamp extinguished. SUPV lamp extinguished. EQPT ST lamp extinguished.
92	At ACCESS TRUNK 1 CONTROL— Depress RLS key.	At ACCESS TRUNK 1 CONTROL— HOLD lamp extinguished. SUPV lamp extinguished. EQPT ST lamp extinguished. At MISC TEST CONTROL— P & E lamp extinguished.
93	At telephone set on TTP— Operate green release key.	

B. Transmission Loss Measurements

Note: Repeat Steps 1 through 7.

- 8 Use the protector block assignments obtained from 3.01 to locate and remove the protector blocks assigned to ports 0 and 1 of the outgoing trunk circuit.

Note: In order to perform this test, the tip and ring leads coming into the circuit must be open. If the trunk circuit does not appear at the protector frame, open the tip and ring leads into the trunk circuit in accordance with local procedures.

- 9 Connect the trunk side appearance of the tip and ring of port 0 to the SP jack nearest the protector frame with a 2W6A cord.

Note: Make sure no other connection is made to the SP jack in the office. If transmission measurement cannot be made via SP jack, connect test equipment to the trunk side appearance of the tip and ring instead of using SP jack.

STEP	ACTION	VERIFICATION
10	At front of writing shelf— Connect TRANS MEAS- DBM-0 jack to SP jack with appropriate cord.	
11	At ACCESS TRUNK 1 CONTROL and ACCESS TRUNK 2 CONTROL— Depress XMSN keys.	At ACCESS TRUNK 1 CONTROL and ACCESS TRUNK 2 CONTROL— XMSN lamps lighted.
12b	If TTP is equipped with TMS— At TRANSMISSION MEASURING CONTROL— Set TEST SET switch to TMS position. Set MEASURE switch to MEAS 1 position. Set SEND switch to OFF position.	
13c	If TTP is not equipped with TMS— At front of writing shelf— Connect external TMS to TRANS MEAS-TM-1 jack. Use appropriate cord.	
14	At TMS— Set ADD DBM switch to 0 position.	
15	Set PD GROUP switch to 6-11 position.	
16	At PERIPHERAL DECODER POINTS— Operate 11 key.	At PERIPHERAL DECODER POINTS— 11 lamp lighted.
17	Depress AT 1 key.	At TMS— Meter indicates between 0 and -0.5 dB. Note level for reference use. At circuit under test— Relay C0 operated.
18	At PERIPHERAL DECODER POINTS— Release 11 key. Operate 6 and 10 keys.	At PERIPHERAL DECODER POINTS— 11 lamp extinguished. 6 and 10 lamps lighted.
19	Depress AT 1 key.	At TMS— Meter indicates no signal present. At circuit under test— Relay C0 released. Relays A1 and TF operated.
20	Set PD GROUP switch to 0-5 position.	
21	At PERIPHERAL DECODER POINTS— Release 4 key. Operate 5 key.	At PERIPHERAL DECODER POINTS— 4 lamp extinguished. 0 and 5 lamps lighted.

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STEP	ACTION	VERIFICATION
22	Depress AT 1 key.	At circuit under test— Relays A0 and J operated. Relays A1 and TF remain operated.
23	At front of writing shelf— Insert 262C-type (900 ohm) plug into ACCESS TRK-2 jack.	At TMS— Meter indicates between 0 and 4.2 dB less than reference level in Step 17.
24	Remove 262C-type (900 ohm) plug from ACCESS TRK-2 jack.	
25b	If TTP is equipped with TMS— Set MEASURE switch to MEAS 2 position.	
26c	If TTP is not equipped with TMS— At front of writing shelf— Move external TMS connection from TRANS MEAS-TM-1 jack to TRANS MEAS-TM-2 jack.	
27	At front of writing shelf— Insert 262C-type (900 ohm) plug into ACCESS TRK-1 jack.	At TMS— Meter indicates between 0 and 4.6 dB less than reference level in Step 17.
28	Remove 262C-type (900 ohm) plug from ACCESS TRK-1 jack.	
29	Remove cord connecting SP jack and TRANS MEAS- DBM-0 jack.	
30	Insert 262C-type (900 ohm) plug into SP jack.	
31	At TRANSMISSION MEASURING CONTROL— Set SEND switch to 0 DBM 1 kHz position.	At TMS— Meter indicates between 0 and 4.2 dB less than reference level in Step 17.
32	Set PD GROUP switch to 6-11 position.	
33	At PERIPHERAL DECODER POINTS— Release 11 key. Operate 7 and 10 keys.	At PERIPHERAL DECODER POINTS— 11 lamp extinguished. 6, 7, and 10 lamps lighted.
34	Depress AT 1 key.	At TMS— Meter indicates between 0 and 4.0 dB less than reference level in Step 17. At circuit under test— Relay B1 operated. Relays A0, A1, J and TF remain operated.
35	At TRANSMISSION MEASURING CONTROL— Set SEND switch to OFF position.	At TMS— Meter indicates no tone present.

STEP	ACTION	VERIFICATION
36	At front of writing shelf— Remove 262C-type (900 ohm) plug from SP jack.	
37	Connect TRANS MEAS- DBM-0 jack to SP jack with appropriate cord.	
38	Insert 262C-type (900 ohm) plug into ACCESS TRK-1 jack.	At TMS— Meter indicates between 0 and 4.2 dB less than reference level in Step 17.
39	Remove 262C-type (900 ohm) plug from ACCESS TRK-1 jack.	
40b	If TTP is equipped with TMS— At TRANSMISSION MEASURING CONTROL— Set MEASURE switch to MEAS 1 position.	
41c	If TTP is not equipped with TMS— At front of writing shelf— Move external TMS connection from TRANS MEAS-TM-2 jack to TRANS MEAS-TM-1 jack.	
42	At front of writing shelf— Insert 262C-type (900 ohm) plug into ACCESS TRK-2 jack.	At TMS— Meter indicates between 0 and 4.4 dB less than reference level in Step 17.
43	At PERIPHERAL DECODER POINTS— Release 7 key.	At PERIPHERAL DECODER POINTS— 7 lamp extinguished.
44	Depress AT 1 key.	At circuit under test— Relay B1 released. Relays A0, A1, J and TF remain operated.
45	Set PD GROUP switch to 0-5 position.	
46	At PERIPHERAL DECODER POINTS— Release 4 key. Operate 3 and 5 keys.	At PERIPHERAL DECODER POINTS— 4 lamp extinguished. 0, 3, and 5 lamps lighted.
47	Depress AT 1 key.	At TMS— Meter indicates between 0 and 4.0 dB less than reference level in Step 17. At circuit under test— Relay G operated. Relays A0, A1, J and TF remain operated.
48	At front of writing shelf— Remove 262C-type (900 ohm) plug from ACCESS TRK-2 jack.	

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STEP	ACTION	VERIFICATION
49	<p>At protector blocks— Move 2W6A cord from port 0 to trunk side appearance of tip and ring of port 1.</p> <p><i>Note:</i> The other end of the 2W6A cord should be connected to the nearest SP jack.</p>	
50b	<p>If TTP is equipped with TMS— At TRANSMISSION MEASURING CONTROL— Set MEASURE switch to MEAS 2 position.</p>	
51c	<p>If TTP is not equipped with TMS— At front of writing shelf— Move external TMS connection from TRANS MEAS-TM-1 jack to TRANS MEAS-TM-2 jack.</p>	
52	<p>Set PD GROUP switch to 6-11 position.</p>	
53	<p>At PERIPHERAL DECODER POINTS— Release 9 and 11 keys. Operate 8 and 10 keys.</p>	<p>At PERIPHERAL DECODER POINTS— 9 and 11 lamps extinguished. 6, 8, and 10 lamps lighted.</p>
54	<p>Depress AT 1 key.</p>	<p>At TMS— Meter indicates between 0 and -0.5 dB. Note level for reference use. At circuit under test— Relay C1 operated. Relays A0, A1, G, J, and TF remains operated.</p>
55	<p>At PERIPHERAL DECODER POINTS— Release 8 key.</p>	<p>At PERIPHERAL DECODER POINTS— 8 lamp extinguished.</p>
56	<p>Depress AT 1 key.</p>	<p>At TMS— Meter indicates between 0 and 4.0 dB less than reference level in Step 54. At circuit under test— Relay C1 released. Relays A0, A1, G, J, and TF remain operated.</p>
57	<p>At PERIPHERAL DECODER POINTS— Release 6 and 10 keys.</p>	<p>At PERIPHERAL DECODER POINTS— 6 and 10 lamps extinguished.</p>
58	<p>Depress AT 1 key.</p>	<p>At circuit under test— Relays A1 and TF released. Relays A0, J, and G remain operated.</p>
59	<p>Set PD GROUP switch to 0-5 position.</p>	
60	<p>Depress AT 1 key.</p>	<p>At circuit under tests— Relays A0, J, and G released.</p>

STEP	ACTION	VERIFICATION
61	At front of writing shelf— Remove 2P4A cord from SP jack and 0 DBM jack.	
62c	If TTP is not equippd with TMS— Remove 2P4A cord from TM-1 jack and external TMS.	
63	At protector frame— Remove 2W6A cord from SP jack and the trunk side appearance of the tip and ring of the outgoing trunk circuit.	
64	Replace the protector blocks or connections opened in preparation.	
65	At ACCESS TRUNK 2 CONTROL— Depress RLS key.	At ACCESS TRUNK 2 CONTROL— SUPV lamp extinguished. EQPT ST lamp extinguished. XMSN lamp extinguished.
66	At ACCESS TRUNK 1 CONTROL— Depress RLS key.	At ACCESS TRUNK 1 CONTROL— SUPV lamp extinguished. EQPT ST lamp extinguished. XMSN lamp extinguished. At MISC TEST CONTROL— P & E lamp extinguished.
67	At telephone set— Operate green release key.	