

**COIN ZONE DIALING TO NO. 3CL SWITCHBOARD
OUTGOING TRUNK CIRCUIT (SD-2H151) TESTS
NO. 2 AND NO. 2B ELECTRONIC SWITCHING SYSTEMS**

1. GENERAL

1.01 This section describes the method of testing the coin zone dialing to the No. 3CL switchboard outgoing trunk circuit SD-2H151 used in the No. 2 and No. 2B Electronic Switching Systems (ESS). The outgoing trunk circuit is used to provide means by which the central processor can carry out the functions required to extend coin charging beyond the local zone.

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 TTY 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 2500 type telephone sets.

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

2.03 One 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.

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SECTION 232-145-501

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

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

3. PREPARATION

AR VY TRK aaa bbb

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

- (a) trunk group number (TGN)
- (b) member number (MEMN)
- (c) supervisory scan point number (SPN)
- (d) protector block assignment of the outgoing trunk circuit at the protector frame.

DSP ss rrb
SPN ss rrb
TRK 064 mmm

ss = scanner number

rr = scanner row

bb = bit in row

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

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.

3.02 Verify the scan point numbers obtained in 3.01 and obtain the MEMN for the noncontrolling port (port 1) as follows:

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).

At maintenance TTY, type in:

A VY:TRK:aaa bbb!

aaa = TGN

bbb = MEMN

All Tests

STEP	ACTION	VERIFICATION
1	At telephone set on TTP— Operate access trunk 1 key.	
2	Lift handset off-hook, or operate TRFR key at TEL CKT on TTP is using headset.	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.
3	At TOUCH-TONE dial— Dial 1 + TGN + MEMN + ST.	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.

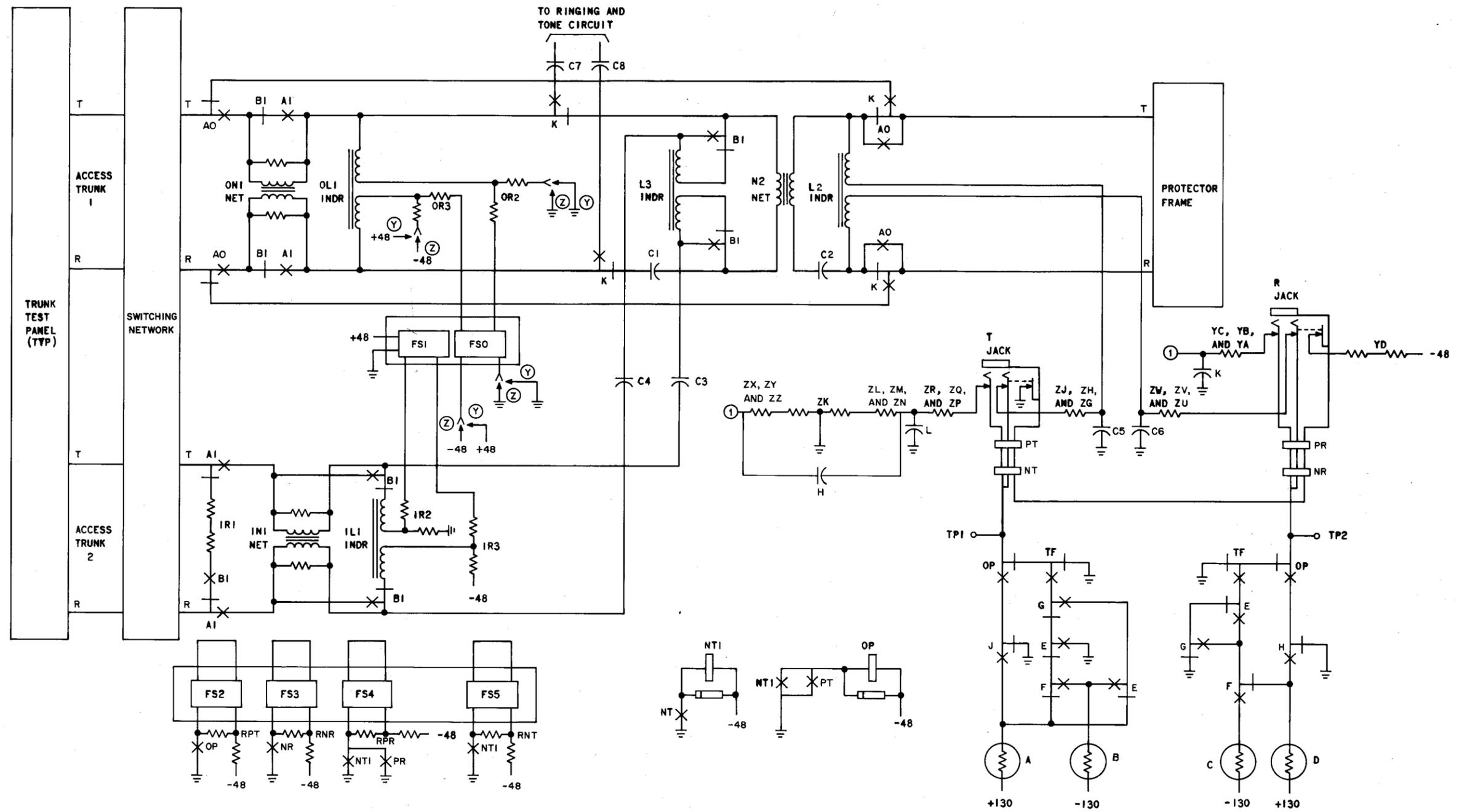


Fig. 1—Outgoing Trunk Circuit (SD-2H151)

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 obtained in 3.02 for <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.

SECTION 232-145-501

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	Depress AT 1 key.	At circuit under test— Relay A0 operated.
26	Set PD GROUP switch to 6-11 position.	
27	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. Relay A0 remains operated.
28	At PERIPHERAL DECODER POINTS— Release 6 key. Operate 7 key.	At PERIPHERAL DECODER POINTS— 6 lamp extinguished. 7 lamp lighted.
29	Depress AT 1 key.	At circuit under test— Relay A1 released. Relay B1 operated. Relay A0 remains operated.

SECTION 232-145-501

STEP	ACTION	VERIFICATION
30	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.
31	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.
32	At front of writing shelf— Connect test telephone sets to ACCESS TRK-1 jack and ACCESS TRK-2 jack.	
33	Identify test set connected to ACCESS TRK-1 jack as test phone A and ACCESS TRK-2 jack as test phone B.	
34	At PERIPHERAL DECODER POINTS— Release 7 key. Operate 6 key.	At PERIPHERAL DECODER POINTS— 7 lamp extinguished. 6 lamp lighted.
35	Depress AT 1 key.	At circuit under test— Relay B1 released. Relay A1 operated. Relay A0 remains operated.
36	List 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— Conversion possible between test phone A and test phone B.
37	At PERIPHERAL DECODER POINTS— Operate 7 key.	At PERIPHERAL DECODER POINTS— 7 lamp lighted.
38	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— Conversion 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
		Relay B1 operated. Relays A0 and A1 remain operated.
39	At PERIPHERAL DECODER POINTS— Release 6 and 7 keys.	At PERIPHERAL DECODER POINTS— 6 and 7 lamps extinguished.
40	Depress AT 1 key.	At DISPLAY BUFFER— Lamp associated with ferrod sensor 1 remains lighted. Lamp associated with ferrod sensor 0 remains extinguished. At circuit under test— Relays A1 and B1 released. Relay A0 remains operated.
41	At PERIPHERAL DECODER POINTS— Operate 11 key.	At PERIPHERAL DECODER POINTS— 11 lamp lighted.
42	Depress AT 1 key.	At test phone A— Audible ring present. At circuit under test— Relay K operated. Relay A0 remains operated.
43	At PERIPHERAL DECODER POINTS— Release 11 key.	At PERIPHERAL DECODER POINTS— 11 lamp extinguished.
44	Depress AT 1 key.	At test phone A— Audible ring not present. At circuit under test— Relay K released. Relay A0 remains operated.
45	At maintenance TTY— ◆For No. 2 ESS offices type in:◆ UB SY:CLB! ◆For No. 2B ESS offices type in: STOP:UTIL!◆	Ferrod sensor display removed from DISPLAY BUFFER.
46	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.	
47	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 46.	

SECTION 232-145-501

STEP	ACTION	VERIFICATION
	<p>rr = Number of scanner row for DSP in decimal (0-63) from Step 46.</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 46. rr = Number of scanner row for DSP in decimal (0-63) from Step 46. RDT LAMPS = Direct the result to the DISPLAY BUFFER.◆</p>	
48	<p>Prior to performing the following steps, it is recommended that the switchboard supervisor be informed that a test is being performed and that the help of a switchboard operator will be needed to verify and send signals.</p> <p>Note: All eight rates are not used in all TELCOs. If the rate is not used, omit the verification.</p>	
49	<p>At PERIPHERAL DECODER POINTS— Operate 10 key.</p>	<p>At PERIPHERAL DECODER POINTS— 10 lamp lighted.</p>
50	<p>Depress AT 1 key.</p>	<p>At switchboard— Operator alerted with a rate 1 signal. At DISPLAY BUFFER— Lamp associated with ferrod sensor 2 extinguished when operator answers. At test phone A— Conversation possible from test phone A to operator. Tell the operator you are testing. At circuit under test— Relays PT, and OP operated while operator is connected. Relay B of interrupted applique operated. Relay A0 remains operated. Relay TF operated until operator answers and then released. When operator disconnects, TF will operate and ferrod sensor 2 lamp will light.</p>
51	<p>Set PD GROUP switch to 0-5 position.</p>	
52	<p>At PERIPHERAL DECODER POINTS— Release 4 key. Operate 0, 1, 2, and 3 keys.</p>	<p>At PERIPHERAL DECODER POINTS— 4 lamp extinguished. 0, 1, 2, and 3 lamps lighted.</p>
53	<p>Depress AT 1 key.</p>	<p>At switchboard— Operator alerted with a rate 2 signal. At DISPLAY BUFFER—</p>

STEP	ACTION	VERIFICATION
		<p>Lamps associated with ferrod sensor 2 extinguished when operator answers. At test phone A— Conversation possible from test phone A to operator. Tell the operator you are testing. At circuit under test— Relays PT and OP operated while operator is connected. Relay A0 remains operated. Relays H, J, and E operated. Relay TF operated until operator answers and then released. When operator disconnects, TF will operate and ferrod sensor 2 lamp will light.</p>
54	At PERIPHERAL DECODER POINTS— Operate 4 key.	At PERIPHERAL DECODER POINTS— Operate 4 key.
55	Depress AT 1 key.	<p>At switchboard— Operator alerted with a rate 4 signal. At DISPLAY BUFFER— Lamp associated with ferrod sensor 2 extinguished when operator answers. At test phone A— Conversation possible from test phone A to operator. Tell the operator you are testing. At circuit under test— Relays PT and OP operated while operator is connected. Relays A0, H, J, and E remain operated. Relay F operated. Relay TF operated until operator answers and then released. When operator disconnects, TF will operate and ferrod sensor 2 lamp will light.</p>
56	At PERIPHERAL DECODER POINTS— Operate 5 key.	At PERIPHERAL DECODER POINTS— 5 lamp lighted.
57	Depress AT 1 key.	<p>At switchboard— Operator alerted with a rate 8 signal. At DISPLAY BUFFER— Lamp associated with ferrod sensor 2 extinguished when operator answers. At test phone A— Conversation possible from test phone A to operator. Tell the operator you are testing. At circuit under test— Relays PT and OP operated while operator is connected. Relays A0, H, J, E, and F remain operated. Relay G operated.</p>

SECTION 232-145-501

STEP	ACTION	VERIFICATION
		Relay TF operated until operator answers and then released. When operator disconnects, TF will operate and ferrod sensor 2 lamp will light.
58	At PERIPHERAL DECODER POINTS— Release 3 key.	At PERIPHERAL DECODER POINTS— 3 lamp extinguished.
59	Depress AT 1 key.	At switchboard— Operator alerted with a rate 7 signal. At DISPLAY BUFFER— Lamp associated with ferrod sensor 2 extinguished when operator answers. At test phone A— Conversation possible from test phone A to operator. Tell the operator you are testing. At circuit under test— Relays PT and OP operated while operator is connected. Relays A0, H, J, F, and G remain operated. Relay E released. Relay TF operated until operator answers and then released. When operator disconnects, TF will operate and ferrod sensor 2 lamp will light.
60	At PERIPHERAL DECODER POINTS— Release 4 key.	At PERIPHERAL DECODER POINTS— 4 lamp extinguished.
61	Depress AT 1 key.	At switchboard— Operator alerted with a rate 5 signal. At DISPLAY BUFFER— Lamp associated with ferrod sensor 2 extinguished when operator answers. At test phone A— Conversation possible from test phone A to operator. Tell the operator you are testing. At circuit under test— Relays PT and OP operated while operator is connected. Relays A0, H, J, and G remain operated. Relay F released. Relay TF operated until operator answers and then released. When operator disconnects, TF will operate and ferrod sensor 2 lamp will light.
62	Set PD GROUP switch to 6-11 position.	
63	At PERIPHERAL DECODER POINTS— Operate 9 key. Release 6, 7, 8, and 11 keys.	At PERIPHERAL DECODER POINTS— 9 lamp lighted. 6,7, 8, and 11 lamps extinguished.

STEP	ACTION	VERIFICATION
64	Depress AT 1 key.	At interrupted applique circuit— Relay A operated. Relay B released. At circuit under test— Relay TF operating at 120 ipm.
65	Set PD GROUP switch to 0-5 position.	
66	At PERIPHERAL DECODER POINTS— Operate 0, 1, 2, and 5 keys.	At PERIPHERAL DECODER POINTS— 0, 1, 2, 3, and 5 lamps lighted.
67	Depress AT 1 key.	At switchboard— Operator alerted with a rate 6 overtime (120 ipm) signal. At DISPLAY BUFFER— Lamp associated with ferrod sensor 2 extinguished when operator answers. At test phone A— Conversation possible from test phone A to operator. <i>Tell the operator you are testing and ask her to disconnect.</i> At circuit under test— Relays PT and OP operated while operator is connected. Relays A0, H, J, and G remain operated. Relay E operated. Relay TF operating at 120 ipm until operator answers and then released. When operator disconnects, TF will operate at 120 ipm and ferrod sensor 2 lamp will light.
68	Set PD GROUP switch to 6-11 position.	
69	At PERIPHERAL DECODER POINTS— Operate 10 key. Release 6, 7, 8, 9, and 11 keys.	At PERIPHERAL DECODER POINTS— 10 lamp lighted. 6, 7, 8, 9, and 11 lamps extinguished.
70	Depress AT 1 key.	At interrupted applique circuit— Relay A released. Relay B operated. At circuit under test— Relay TF operated.
71	Set PD GROUP switch to 0-5 position.	
72	At PERIPHERAL DECODER POINTS— Operate 0, 1, and 2 keys.	At PERIPHERAL DECODER POINTS— 0, 1, 2, and 4 lamps lighted.
73	Depress AT 1 key.	At switchboard— Operator alerted with a rate 3 signal. At DISPLAY BUFFER— Lamp associated with ferrod sensor 2 extinguished

STEP	ACTION	VERIFICATION
		<p>when operator answers. At test phone A— Conversation possible from test phone A to operator. <i>Request the operator to remain connected for further test.</i> At circuit under test— Relays PT and OP operated when operator answers. Relays A0, H, and J remain operated. Relay F operated. Relays E and G released.</p>
74	<p>At switchboard— Request operator to send a coin collect signal.</p>	<p>At DISPLAY BUFFER— Lamp associated with ferrod sensor 4 extinguished. Lamp associated with ferrod sensor 2 remains extinguished. At circuit under test— Relay PR operated. Relays A0, H, J, F, PT, and OP remain operated.</p>
75	<p>Request operator to release coin collect signal.</p>	<p>At DISPLAY BUFFER— Lamp associated with ferrod sensor 4 lighted. Lamp associated with ferrod sensor 2 remains extinguished. At circuit under test— Relay PR released. Relays A0, H, J, F, PT, and OP remain operated.</p>
76	<p>Request operator to send a coin return signal.</p>	<p>At DISPLAY BUFFER— Lamp associated with ferrod sensor 3 extinguished. Lamp associated with ferrod sensor 2 remains extinguished. At circuit under test— Relay NR operated. Relays A0, H, J, F, PT, and OP remain operated.</p>
77	<p>Request operator to release coin return signal.</p>	<p>At DISPLAY BUFFER— Lamp associated with ferrod sensor 3 lighted. Lamp associated with ferrod sensor 2 remains extinguished. At circuit under test— Relay NR released. Relays A0, H, J, F, PT, and OP remain operated.</p>
78	<p>Request operator to send a rering signal.</p>	<p>At DISPLAY BUFFER— Lamp associated with ferrod sensors 4 and 5 extinguished. Lamp associated with ferrod sensor 2 remains</p>

STEP	ACTION	VERIFICATION
		extinguished. At circuit under test— Relays NT and NT1 operated. Relays A0, H, J, F, PT, and OP remain operated.
79	Request operator to release rering signal.	At DISPLAY BUFFER— Lamp associated with ferrod sensor 4 and 5 lighted. Lamp associated with ferrod sensor 2 remains extinguished. At circuit under test— Relays NT and NT1 released. Relays A0, H, J, F, PT, and OP remain operated.
80	At PERIPHERAL DECODER POINTS— Release 2 key.	At PERIPHERAL DECODER POINTS— 2 lamp extinguished.
81	Depress AT 1 key.	At switchboard— Operator receives coin present, on-hook signal. At circuit under test— Relay J released. Relays A0, F, H, PT, and OP remain operated.
82	Request operator to disconnect from circuit under test.	At DISPLAY BUFFER— Lamp associated with ferrod sensor 2 lighted. At circuit under test— Relays PT and OP released. Relay TF operated.
83	At PERIPHERAL DECODER POINTS— Release 0, 1, and 4 key.	At PERIPHERAL DECODER POINTS— 0, 1, and 4 lamps extinguished.
84	Depress AT 1 key.	At circuit under test— Relays A0, F, and H released.
85	Set PD GROUP switch to 6-11 position.	
86	Depress AT 1 key.	At circuit under test— Relay TF released. Relay B of interrupted applique released.
87	At front writing shelf— Remove test phone A and B connections from ACCESS TRK-1 and ACCESS TRK-2 jack.	
88	At maintenance TTY— ◆For No. 2 ESS offices type in:◆ UB SY:CLB!	At DISPLAY BUFFER— Scanner row display is removed.

SECTION 232-145-501

STEP	ACTION	VERIFICATION
	◆For No. 2 ESS office type in: STOP:UTIL◆	
	<i>Note:</i> If Transmission Loss Measurement is to be, proceed to Test B.	
89	At ACCESS TRUNK 2 CONTROL— Depress RLS key.	At ACCESS TRUNK 2 CONTROL— SUPV lamp extinguished. EQPT ST lamp extinguished. VM lamp extinguished.
90	At ACCESS TRUNK 1 CONTROL— Depress RLS key.	At ACCESS TRUNK 1 CONTROL— SUPV lamp extinguished. EQPT ST lamp extinguished. VM lamp extinguished. At MISC TEST CONTROL— P & E lamp extinguished.
91	At telephone set on TTP. Operate green release key.	

B. Transmission Loss Measurements

- 8 Use the protector block assignment from 3.01 to locate and remove the protector block assigned to the outgoing trunk circuit.

Note: In order to perform these tests, 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. All repeaters must be removed from the trunk.

- 9 At the protector frame—
Use 2W6A cord to connect the trunk side appearance of the tip and ring of the outgoing trunk circuit to the SP jack nearest the protector frame.

Note: No other connections should be made to the SP jacks in the office. If transmission measurements cannot be made via SP jack, connect test equipment to the trunk side appearance of the tip and ring instead of using SP jack.

- 10 At the front of writing shelf—
Use 2P4A cord to connect 0 DBM jack to SP jack.

STEP	ACTION	VERIFICATION
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 2P4A 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 K operated.
18	At PERIPHERAL DECODER POINTS— Release 11 key. Operate 6 key.	At PERIPHERAL DECODER POINTS— 11 lamp extinguished. 6 lamp lighted.
19	Depress AT 1 key.	At TMS— Meter indicates no signal present. At circuit under test— Relay K released. Relay A1 operated.
20	Set PD GROUP switch to 0-5 position.	
21	Depress AT 1 key.	At circuit under test— Relay A0 operated. Relay A1 remain operated.
22	At front of writing shelf— Insert 262C-type (900 ohm) plug into ACCESS TRK-2 jack.	At TMS— Meter indicates between 0 and 3.7 dB less than reference level in Step 17.
23	Remove 262C-type (900 ohm) plug from ACCESS TRK-2 jack.	

SECTION 232-145-501

STEP	ACTION	VERIFICATION
24b	If TTP is equipped with TMS— Set MEASURE switch to MEAS 2 position.	
25c	If TTP is not equipped with TMS— At front of writing shelf— Move external TMS connection from TRANS MEAS- TM1 jack to TRANS MEAS- TM2 jack.	
26	At front of writing shelf— Insert 262C-type (900 ohm) plug into ACCESS TRK-1 jack.	At TMS— Meter indicates between 0 and 4.3 dB less than reference level in Step 17.
27	Remove 262C-type (900 ohm) plug from ACCESS TRK-1 jack.	
28	Remove cord connecting SP jack and TRANS MEAS- DBM-0 jack.	
29	Insert 262C-type (900 ohm) plug into SP jack.	
30	At TRANSMISSION MEASURING CONTROL— Set SEND switch to 0 DBM 1 KHZ position.	At TMS— Meter indicates between 0 and 3.9 dB less than reference level in Step 17.
31	At TRANSMISSION MEASURING CONTROL— Operate REV TST key.	At TMS— Meter indicates between 0 and 3.9 dB less than reference level in Step 17. At TRANSMISSION MEASURING CONTROL— REV TST lamp lighted.
32	Set PD GROUP switch to 6-11 position.	
33	At PERIPHERAL DECODER POINTS— Operate 7 key.	At PERIPHERAL DECODER POINTS— 7 lamp lighted.
34	Depress AT 1 key.	At TMS— Meter indicates between 0 and 3.7 dB less than reference level in Step 17. At circuit under test— Relay B1 operated. Relays A0 and A1 remain operated.
35	At TRANSMISSION MEASURING CONTROL— Release REV TST key.	At TMS— Meter indicates between 0 and 3.7 dB less than reference level in Step 17. At TRANSMISSION MEASURING CONTROL— REV TST lamp extinguished.
36	At TRANSMISSION MEASURING CONTROL— Set SEND switch to OFF position.	At TMS— Meter indicates no tone present.

STEP	ACTION	VERIFICATION
37	At front of writing shelf— Remove 262C-type (900 ohm) plug from SP jack.	
38	Connect TRANS MEAS- DBM-0 jack to SP jack with appropriate cord.	
39	Insert 262C-type (900 ohm) plug into ACCESS TRK-1 jack.	At TMS— Meter indicates between 0 and 3.8 dB less than reference level in Step 17.
40	Remove 262C-type (900 ohm) plug from ACCESS TRK-1 jack.	
41b	If TTP is equipped with TMS— At TRANSMISSION MEASURING CONTROL— Set MEASURE switch to MEAS 1 position.	
42c	If TTP is not equipped with TMS— At front of writing shelf— Move external TMS connection from TRANS MEAS- TM2 jack to TRANS MEAS- TM1 jack.	
43	At front of writing shelf— Insert 262C-type (900 ohm) plug into ACCESS TRK-2 jack.	At TMS— Meter indicates between 0 and 4.0 dB less than reference level in Step 17.
44	Remove 262C-type (900 ohm) plug from ACCESS TRK-2 jack.	
45	Remove cord connecting SP jack and TRANS MEAS-DBM-0 jack.	
46c	Remove cord connecting external TMS and TRANS MEAS-TM1 jack.	
47	At PERIPHERAL DECODER POINTS— Release 6 and 7 keys.	At PERIPHERAL DECODER POINTS— 6 and 7 lamps extinguished.
48	Depress AT 1 key.	At circuit under test— Relays A1 and B1 released. Relay A0 remains operated.
49	Set PD GROUP switch to 0-5 position.	
50	Depress AT 1 key.	At circuit under test— Relay A0 released.
51	At protector frame— Remove 2W6A cord from SP jack and the trunk side appearance of the tip and ring of	

SECTION 232-145-501

STEP	ACTION	VERIFICATION
	the outgoing trunk circuit. Replace all repeaters in trunk.	
52	Replace the protector block or connections opened in preparation.	
53	At ACCESS TRUNK 2 CONTROL— Depress RLS key.	At ACCESS TRUNK 2 CONTROL— SUPV lamp extinguished. EQPT ST lamp extinguished. XMSN lamp extinguished.
54	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.
55	At telephone set— Operate green release key.	