

OUTGOING TRUNK AND JUNCTOR CIRCUITS
TESTS USING TRUNK TEST CIRCUIT SD-25918-01
NO. 5 CROSSBAR OFFICES

1. GENERAL

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1.01 This section describes a method of testing the following wire-spring-relay and nonwire-spring-relay type outgoing trunk and junctor circuits: SD-25578-01, 02, SD-25694-01, 02, SD-25739-01, 02, 03, 04, SD-25758-01, 02, SD-25823-01, 02, SD-25840-01, SD-26065-01, SD-26085-01, SD-26086-01, SD-26087-01, SD-26089-01, SD-27568-01, and SD-27665-01.

indexer and recorder number on AMA operation.

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1.02 This section is reissued for the reasons listed below. Revision arrows are used to emphasize the more significant changes. This reissue affects Equipment Test Lists.

C. Supervision—Terminating End Disconnect: The following features are checked: (1) Continuity and polarity of tip and ring leads. (2) Ability to hold if extra digits are dialed. (3) Timed release of circuit within 13 to 32 seconds, or 2 to 5 seconds on calls to No. 4 ESS CAMA. (4) Charge functions of circuits arranged for AMA, coin, or message register operation.

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(a) To add calling data transmitter (CDT) features to all tests except F, G, H, J, K, O and Q.

D. Noncharge Supervision: This test checks that a charge condition is not established when an answered call is held less than 2 seconds when this feature is provided.

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(b) To add coin service improvements (dial-tone-first) to tests A through G, L, M, and Q.

(c) To add change in timing on called customer-disconnect on calls to No. 4 ESS CAMA.

E. Initial and Overtime Charges—Circuits Arranged for Coin or Message Register Operation With Timing (LAMA-C not Provided): The features tested for coin operation are: (1) Charge functions. (2) Selection of coin supervisory circuit. (3) Collection of initial deposit. (4) Test for overtime deposit. (5) Collection of overtime deposit. The features tested for message register operation are: (1) Charge functions. (2) Initial charge within 2 to 5 seconds. (3) Overtime charge functions.

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1.03 The tests covered are:

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A. Seizure: This test checks that the trunk may be seized on a subscriber outgoing call.

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B. Supervision—Originating End Disconnect: The following features are checked: (1) Continuity and polarity of tip and ring leads. (2) Release of trunk without timed release. (3) Charge functions of circuits arranged for AMA, coin, or message register operation. (4) Trunk number assignment in call identity

F. Timed Release After Coin Collect but Before Overtime Monitoring—Circuits Arranged for Coin Operation With Timing (LAMA-C or CDT not Provided):

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G. Return of Overtime Deposit—Disconnect After Coin Collect but Before Overtime Monitoring Circuits Arranged for Coin Operation With Timing (LAMA-C or CDT not Provided):	24
H. Cancel Disconnect Entry—Circuits Arranged for AMA Operation—When Disconnect Entry is Provided—Trunk Not Arranged for LAMA-C ETS or CDT: This test checks the canceling of disconnect entry and release of circuit if disconnect entry is not made within 2 to 5 seconds after disconnect.	27
I. Overflow: This test checks that on a subscriber outgoing call the circuit is set for overflow when a reorder condition is encountered.	28
J. Seizure—Circuits Arranged for Tandem Operation: The following features are checked: (1) Seizure of circuit on a tandem outgoing call. (2) Continuity and polarity of tip and ring leads.	29
K. Overflow—Circuits Arranged for Tandem Operation: This test checks that on a tandem outgoing call the circuit is set for overflow when a reorder condition is encountered.	30
L. Call to Busy Line and Overflow Test Number: The following features are checked: (1) Charge not established to busy line or overflow test number in terminating and, when required, switching offices. (2) Transmission of busy tone or overflow tone from terminating and, when required, switching offices.	30
M. Call to Test Line: This test checks supervision when supervisory signals are transmitted from a distant office.	35
N. Circuit Busy: The following features are checked: (1) Seizure	

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by only the test frame when circuit is made busy. (2) Busy condition to service calls when circuit is made busy. (3) Busy condition to service calls when incoming trunk at CAMA office is made busy. (4) Automatic make busy of trunk on carrier failures.	35
O. False-Busy and False-Idle Conditions (Not Required for ETS): This test checks for continuity and crosses on the F, BT, and FT leads.	38
P. Deleted.	
Q. ETS Verification Test: This test verifies (1) trunk seizure and release. (2) Trunk supervisory scanning (FT, S1, CS leads) (3) Make-busy override (4) Correct trunk register assignment.	39
1.04 Test H requires action and verification at the master test frame and relay rack frame.	
1.05 Tests N and O require that all other trunks in the same trunk group and located on the same trunk link frame as the trunk under test be made busy.	
1.06 If office is not wired to complete to overflow test number or nonworking code at tandem office, it may be necessary to establish a temporary route.	
1.07 The manner of selecting some circuits and test conditions at the master test frame (MTF) and its associated circuits varies depending on the apparatus options furnished with these circuits. Therefore, where variable means of selection are provided, precise instructions for the selection of circuits and test conditions are not given. Precise instructions for the use of these variable means are given in Section 218-106-301.	
1.08 The location statement, At MTF—, is used to refer to all apparatus located on the four basic bays of the MTF.	
1.09 Lettered Steps: A letter a, b, c, etc, added to a step number in Part 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 a 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.

1.10 When the office is arranged for either LAMA-C or ETS, the distributor and scanner associated with the marker and trunk used in the test call must be *in service*, or in a *maintenance-busy* condition—not in an *out-of-service* condition. To change a scanner or distributor from an *out-of-service* to a *maintenance-busy* condition, use the procedure given in the following sections for the office arrangement.

218-798-308—Taking LAMA-C Equipment Out of Service.

218-799-701—Taking ETS Equipment Out of Service.

1.11 The statement between asterisks (* *) after action or verification statements is added to clarify the function being simulated in the test procedures.

1.12 When the trunk under test is arranged for ETS, the first completed test call from the MTF will cause the TST bit to be set in the trunk register associated with the selected trunk, enabling trunk supervisory scanning to be repeated on the FT, CS, and S1 lamps at the MTF trunk test circuit. As long as the TST bit is set in the trunk register, supervision will continue to be repeated on the lamps, even on service calls. The TST bit will remain set in the trunk register until (1) a test call is made from the MTF to another trunk, or (2) the command **STOP:TRK TST** is entered at the maintenance TTY.

1.13 On issue 76D of SD-25800-01 a group of 18 "class of test" lamps was replaced by a single "start test" lamp designated STT. Since the designation given to the lamp is not specific, the lamp will not be called out in the section, as well as the 18 discontinued lamps, DT, ORIG,

ITDO, ITNP, OGT, INC, OR, SDR, IR, MISC, IAO, MLV, LT, IMS, PTT, TVT, ATNT, and IMT.

1.14 ♦When CDT (calling data transmitter) billing system is provided in the office, this trunk may or may not handle billable calls. When it is arranged for billable calls, supervisory scan points will be assigned and supervision will be repeated from the scan points on test calls to the MTF by CS and S1 lamps.

1.15 When CDT is provided, there may be several configurations in the office—single controller, dual controller with the trunk assigned to one controller, or dual controller and the trunk is assigned to both controllers. When assigned to both controllers in a dual controller configuration, one test must be made to each controller to verify scan points for each controller.♦

2. APPARATUS

Tests A Through N, Q

2.01 Master test control circuit, SD-25800-01.

2.02 Trunk test circuit, SD-25918-01.

Tests A Through O, Q

2.03 322A (make-busy) plugs as required.

Tests B Through H, Q

2.04 KS-3008 stopwatch or equivalent.

Test I

2.05 Patching cord, P3E cord, 6 feet long, equipped with two 310 plugs (3P7A cord) (used for patching ITT jack to T jack of junctor circuit which is arranged for operation with MF or DP senders and registers).

Test O

2.06 Oscillator J94730B (SD-95616-01), part of 1A fault locator test set, J94730A.

2.07 Testing cord, W1AK cord, 6 feet long, equipped with 1P (P44B, 490) banana plug, one 360B tool, and one 419A tool for testing

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nonwire-spring type circuits, or one 624B tool for testing wire-spring type circuits.

KS-6278 connecting clips or one KS-6278 connecting clip and one 624B tool, as required (for connecting high resistance ground (HRG) to terminal strip terminals).

2.08 Testing cord, 893 cord, 6 feet long, equipped with two 360A tools (1W13B cord) and two

3. PREPARATION

Refer to paragraphs 1.07 through 1.15.

STEP	ACTION	VERIFICATION
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All Tests Except O

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|---|--|-------------------------|
| 1 | At MTF—
Restore all keys and switches. | |
| 2 | Momentarily operate RL key. | All lamps extinguished. |
| 3 | Select originating class of call and associated translator indication. | |
| 4 | Select trunk. | |
| 5 | Operate GPA/GPB key when trunk under test is in an allotted group. | |
| 6 | Select route advance, as required. | |
| 7 | Select completing marker. | |
| 8 | Operate TLK, KY, FS, TS keys. | |

All Tests Except I, L, M, and O

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|----|--|--|
| 9 | Select OGT class of test. | |
| 10 | Select access digits A_ through K_ as required to route to circuit under test. | |

All Tests Except H and O

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|-----|--|--|
| 11a | If ETS provided—
Operate PCS key.
Allows selected class of service to be used. | |
| 12a | Operate PTS key.
Allows selection of trunk. | |

All Tests Except F, G, H, J, K, O, and Q

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|-----|---|--|
| 13b | ◆If trunk is to be tested for CDT—
Operate CDTT key. | |
|-----|---|--|

STEP	ACTION	VERIFICATION
14b	When trunk is assigned to CDT dual controllers, select controller— Operate CDC 0/1 key.	
15b	When a trouble record is to be taken from the CDT translator access (TA) circuit— Operate TREC key.	
16b	When the CDT controller operates with both shared and dedicated translator circuits and a particular translator circuit is to be used for the test— Operate TAD key to select dedicated TA circuit or operate TAS key to select shared TA circuit.	

Note: When a TA circuit is not selected, the controller will select the next available TA circuit.◆

4. METHOD

STEP	ACTION	VERIFICATION
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A. Seizure

Flat-Rate Operation

17	Select flat-rate class of service, and rate treatment as required.	
18	Momentarily operate ST key.	AS lamp lighted. If answer and disconnect supervision to local customer is provided— PK lamp lighted. If ETS provided— FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted. ◆If CDTT key is operated— S1 lamp lighted.◆
19	Restore TLK key.	AS lamp extinguished. If ETS provided— FT, S1 lamps extinguished. If LAMA-C provided— S1 lamp extinguished. ◆If CDTT key is operated— S1 lamp extinguished.◆
20	Momentarily operate RL key.	All lamps extinguished.

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STEP	ACTION	VERIFICATION
Message Register Operation (ETS, LAMA-C Not Provided)		
21	Select message register class of service, and rate treatment as required.	
22	Momentarily operate ST key.	<p>◆If CDTT key is operated and hotel-motel feature provided— S1 lamp lighted.◆ AS lamp lighted. If answer and disconnect supervision to local customer is provided— PK lamp lighted.</p>
23	Restore TLK key.	AS lamp extinguished.
24	Momentarily operate RL key.	All lamps extinguished.
AMA Operation (ETS, LAMA-C, ◆CDT◆ Not Provided)		
25	Select AMA class of service, rate treatment having access to circuit under test.	
26	Momentarily operate ST key.	<p>AS, IE, RN_, T_, U_ lamps lighted. If answer and disconnect supervision to local customer is provided— PK lamp lighted.</p>
27	Restore TLK key.	AS lamp extinguished.
28	Momentarily operate RL key.	All lamps extinguished.
Coin Operation ◆(LAMA-C, CDT not Provided)◆		
29	Select coin class of service, and rate treatment as required.	
30c	<p>◆If coin service improvements (dial-tone-first) provided— Operate DTNF key.◆</p>	
31	Operate CN key.	
32	Momentarily operate ST key.	<p>AS lamp lighted. PK lamp not lighted. If ETS provided— FT, S1 lamps lighted.</p>
33	Restore TLK key.	<p>CR lamp momentarily lighted. CND lamp lighted.</p>

STEP	ACTION	VERIFICATION
		<p>◆If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp does not light.◆ AS lamp extinguished. If ETS provided— FT, S1 lamps extinguished.</p>
34	Momentarily operate RL key.	All lamps extinguished.
All Tests		
35d	If no other tests are to be made— Restore all keys and switches.	
B. Supervision—Originating End Disconnect		
Flat-Rate Operation		
17	Select flat-rate class of service, and rate treatment as required.	
18	Momentarily operate ST key.	<p>◆If CDTT key is operated— S1 lamp lighted.◆ AS lamp lighted. If answer and disconnect supervision to local customer is provided— PK lamp lighted. If ETS provided— FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted.</p>
19c	If improved testing of CS relay is provided— Momentarily operate SK key.	
20	Operate ANS key.	<p>◆If CDTT key is operated— CS lamp lighted.◆ High tone heard. OGT-CS lamp lighted. If answer and disconnect supervision to local customer is provided— PK lamp extinguished. If ETS or LAMA-C provided— CS lamp lighted.</p>
21c	If improved testing of CS relay is provided— Momentarily operate CSR key.	<p>OGT-CS lamp momentarily extinguished. If ETS or LAMA-C provided ◆or CDTT key operated—◆ CS lamp momentarily extinguished.</p>
22	Restore TLK key.	<p>AS lamp extinguished. OGT-CS lamp extinguished.</p>

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STEP	ACTION	VERIFICATION
		High tone silenced. If ETS provided— FT, CS, S1 lamps extinguished. If LAMA-C provided— CS, S1 lamps extinguished. ◆If CDTT key is operated— S1, CS lamps extinguished.◆
23	Momentarily operate RL key.	All lamps extinguished.
AMA Operation (ETS, ◆CDT,◆ or LAMA-C not Provided)		
24	Select AMA class of service, and rate treatment as required.	
25	Momentarily operate ST key.	AS, IE, RN_, T_, U_ lamps lighted. If answer and disconnect supervision to local customer is provided— PK lamp lighted.
26c	If improved testing of CS relay is provided— Momentarily operate SK key.	
27	Operate ANS key, <i>start timing</i> .	OGT-CS lamp lighted. High tone heard. If answer and disconnect supervision to local customer is provided— PK lamp extinguished. In 2 to 5 seconds— AE lamp lighted.
28c	If improved testing of CS relay is provided— Momentarily operate CSR key.	OGT-CS lamp momentarily extinguished.
29	Restore TLK key.	AS lamp extinguished. High tone silenced. OGT-CS lamp extinguished. If disconnect entry is provided— DE lamp lighted.
30	Momentarily operate RL key.	All lamps extinguished.
Coin Operation ◆(LAMA-C or CDT not Provided)◆		
31	Select coin class of service, and rate treatment as required.	
32d	◆If coin service improvements (dial-tone-first) provided— Operate DTNF key.◆	

STEP	ACTION	VERIFICATION
33	Operate CN key.	
34	Momentarily operate ST key.	AS lamp lighted. PK lamp <i>not</i> lighted. If ETS provided— FT, S1 lamps lighted.
35c	If improved testing of CS relay is provided— Momentarily operate SK key.	
36	Operate ANS key. <i>Note:</i> The answer condition must be maintained for a minimum of 8 seconds to establish charge condition.	OGT-CS lamp lighted. High tone heard. If ETS provided— CS lamp lighted.
37c	If improved testing of CS relay is provided— Momentarily operate CSR key.	OGT-CS lamp momentarily extinguished. If ETS provided— CS lamp momentarily extinguished.
38	Restore TLK key.	CC lamp momentarily lighted. CND lamp lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.♦ AS lamp extinguished. OGT-CS lamp extinguished. High tone silenced. If ETS provided— FT, S1, and CS lamps extinguished.
39	Momentarily operate RL key.	All lamps extinguished.
Message Register Operation (ETS, LAMA-C not Provided)		
40	Select message register class of service, rate treatment as required.	
41	Momentarily operate ST key.	♦If CDTT key is operated and hotel-motel billing provided— S1 lamp lighted.♦ AS lamp lighted. PK lamp <i>not</i> lighted.
42c	If improved testing of CS relay is provided— Momentarily operate SK key.	
43	Operate ANS key.	♦If CDTT key is operated and hotel-motel billing provided— CS lamp lighted.♦ OGT-CS lamp lighted.

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STEP	ACTION	VERIFICATION
		High tone heard. In 2 to 5 seconds— RP lamp lighted. DR lamp <i>not</i> lighted.
44c	If improved testing of CS relay is provided— Momentarily operate CSR key.	◆If CDTT key is operated and hotel-motel billing provided— CS lamp extinguished momentarily.◆ OGT-CS lamp momentarily extinguished.
45	Restore TLK key.	◆If CDTT key is operated and hotel-motel billing provided— S1, CS lamps extinguished.◆ AS lamp extinguished. OGT-CS lamp extinguished. High tone silenced.
46	Momentarily operate RL key.	All lamps extinguished.
47e	If circuit under test is arranged for 2-party message register operation— Restore ANS key.	
48e	Operate TP, TLK keys.	
49e	Momentarily operate ST key.	◆If CDTT key is operated and hotel-motel billing provided— S1 lamp lighted.◆ AS lamp lighted.
50e	Operate ANS key.	◆If CDTT key is operated and hotel-motel billing provided— CS lamp lighted.◆ High tone heard. OGT-CS lamp lighted. In 2 to 5 seconds— TP lamp lighted. DR lamp not lighted.
51e	Restore TLK key.	◆If CDTT key is operated and hotel-motel billing provided— S1, CS lamps extinguished.◆ AS, OGT-CS lamps extinguished. High tone silenced.
52e	Momentarily operate RL key.	All lamps extinguished.

All Tests

53f If no other tests are to be made—
Restore all keys and switches.

STEP	ACTION	VERIFICATION
C. Supervision—Terminating End Disconnect		
Note: Do not proceed with this test until the time shown below has elapsed since the thermal time delay RL relay in circuit was last energized.		
1	4 minutes where tube-type RL relay is used. 2 minutes where 235-type RL relay is used.	
Flat-Rate Operation		
17	Select flat-rate class of service, rate treatment having access to circuit under test.	
18	Momentarily operate ST key.	AS lamp lighted. If answer and disconnect supervision to local customer is provided— PK lamp lighted. If ETS provided— FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted. ♦If CDTT key is operated— S1 lamp lighted.♦
19	Dial digit 7.	AS lamp remains lighted.
20c	If improved testing of CS relay is provided— Momentarily operate SK key.	
21	Operate ANS key.	♦If CDTT key is operated— CS lamp lighted.♦ OGT-CS lamp lighted. High tone heard. If answer and disconnect supervision to local customer is provided— PK lamp extinguished. If ETS or LAMA-C provided— CS lamp lighted.
22c	If improved testing of CS relay is provided— Momentarily operate CSR key.	OGT-CS lamp momentarily extinguished. If ETS or LAMA-C provided ♦or CDTT key operated—♦ CS lamp momentarily extinguished.
23	Restore ANS key, <i>start timing</i> .	♦If CDTT key is operated— CS lamp extinguished.♦ If ETS or LAMA-C provided— CS lamp extinguished. OGT-CS lamp extinguished. High tone silenced.

STEP	ACTION	VERIFICATION
		<p>If answer and disconnect supervision to local customer is provided— PK lamp lighted.</p> <p>◆In 2 to 5 seconds (No. 4 ESS CAMA)◆ or in 13 to 32 seconds— AS lamp extinguished. If ETS provided— FT, S1 lamps extinguished. If LAMA-C provided— S1 lamp extinguished. ◆If CDTT key is operated— S1 lamp extinguished.◆</p>
24	Momentarily operate RL key.	All lamps extinguished.
AMA Operation (ETS, ◆CDT,◆ or LAMA-C not provided)		
25	Select AMA class of service, rate treatment having access to circuit under test.	
26	Momentarily operate ST key.	<p>AS, IE, RN, T, U lamps lighted. If answer and disconnect supervision to local customer is provided— PK lamp lighted.</p>
27	Dial digit 7.	AS lamp remains lighted.
28c	If improved testing of CS relay is provided— Momentarily operate SK key.	
29	Operate ANS key.	<p>OGT-CS lamp lighted. High tone heard. If answer and disconnect supervision to local customer is provided— PK lamp extinguished. In 2 to 5 seconds— AE lamp lighted.</p>
30c	If improved testing of CS relay is provided— Momentarily operate CSR key.	OGT-CS lamp momentarily extinguished.
31	Restore ANS key, <i>start timing</i> .	<p>OGT-CS lamp extinguished. High tone silenced. If answer and disconnect supervision to local customer is provided— PK lamp lighted. In 13 to 32 seconds— AS lamp extinguished. If disconnect entry is provided— DE lamp lighted.</p>

STEP	ACTION	VERIFICATION
32	Momentarily operate RL key.	All lamps extinguished.
Coin Operation ♦(LAMA-C or CDT not Provided)♦		
33	Select coin class of service, rate treatment having access to circuit under test.	
34d	♦If coin service improvements (dial-tone-first) provided— Operate DTNF key.♦	
35	Operate CN key.	
36	Momentarily operate ST key.	AS lamp lighted. PK lamp not lighted. If ETS provided— FT, S1 lamps lighted.
37	Dial digit 7.	AS lamp remains lighted.
38c	If improved testing of CS relay is provided— Momentarily operate SK key.	
39	Operate ANS key. Note: The answer conditions must be maintained for a minimum of 8 seconds to establish charge condition.	OGT-CS lamp lighted. High tone heard. If ETS provided— CS lamp lighted.
40c	If improved testing of CS relay is provided— Momentarily operate CSR key.	OGT-CS lamp momentarily extinguished. If ETS provided— CS lamp momentarily extinguished.
41	Restore ANS key, start timing.	If ETS provided— CS lamp extinguished. OGT-CS lamp extinguished. High tone silenced. In 13 to 32 seconds— CC lamp momentarily lighted. CND lamp lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp does not light.♦ AS lamp extinguished. If ETS provided— FT, S1 lamps extinguished.
42	Momentarily operate RL key.	All lamps extinguished.

STEP	ACTION	VERIFICATION
Message Register Operation (ETS, LAMA-C not provided)		
43	Select message register class of service, rate treatment having access to circuit under test.	
44	Momentarily operate ST key.	◆If CDTT key is operated and hotel-motel billing provided— S1 lamp lighted.◆ AS lamp lighted. PK lamp not lighted.
45	Dial digit 7.	AS lamp remains lighted.
46c	If improved testing of CS relay is provided— Momentarily operate SK key.	
47	Operate ANS key.	◆If CDTT key is operated and hotel-motel billing provided— CS lamp lighted.◆ OGT-CS lamp lighted. High tone heard. In 2 to 5 seconds— RP lamp lighted.
48c	If improved testing of CS relay is provided— Momentarily operate CSR key.	◆If CDTT key is operated and hotel-motel billing provided— CS lamp momentarily extinguished.◆ OGT-CS lamp momentarily extinguished.
49	Restore ANS key, start timing .	◆If CDTT key is operated and hotel-motel billing provided— CS lamp extinguished.◆ OGT-CS lamp extinguished. High tone silenced. In 13 to 32 seconds— AS lamp extinguished. ◆If CDTT key is operated and hotel-motel billing provided— S1 lamp extinguished.◆
50	Momentarily operate RL key.	All lamps extinguished.

All Tests

51e If no other tests are to be made—
Restore all keys and switches.

STEP	ACTION	VERIFICATION
D. Noncharge Supervision		
AMA Operation (ETS, ♦CDT,♦ or LAMA-C not provided)		
17	Select AMA class of service, rate treatment having access to circuit under test.	
18	Momentarily operate ST key.	AS, IE, RN, T, U lamps lighted.
19	Operate ANS key for less than 2 seconds.	AE lamp <i>not</i> lighted. While ANS key is operated— OGT-CS lamp lighted.
20	Momentarily operate RL key.	All lamps extinguished.

Coin Operation ♦(LAMA-C or CDT not Provided)♦

21	Select coin class of service, rate treatment having access to circuit under test.	
22c	♦If coin service improvements (dial-tone-first) provided— Operate DTNF key.♦	
23	Operate CN key.	
24	Momentarily operate ST key.	AS lamp lighted. If ETS provided— FT, S1 lamps lighted.
25	Operate ANS key for less than 2 seconds.	While ANS key is operated— OGT-CS lamp lighted. High tone heard. If ETS provided— CS lamp lighted.
26	Restore TLK key.	CR lamp momentarily lighted. CND lamp lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.♦ AS lamp extinguished. If ETS provided— FT, S1 lamps extinguished.
27	Momentarily operate RL key.	All lamps extinguished.

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STEP	ACTION	VERIFICATION
Message Register Operation (ETS, LAMA-C not provided)		
28	Select message register class of service, rate treatment having access to circuit under test.	
29	Momentarily operate ST key.	◆If CDTT key is operated and hotel-motel billing provided— S1 lamp lighted.◆ AS lamp lighted.
30	Operate ANS key for less than 2 seconds.	RP lamp not lighted. While ANS key is operated— OGT-CS lamp lighted. ◆If CDTT key is operated and hotel-motel billing provided— CS lamp lighted.◆ High tone heard.
31	Momentarily operate RL key.	All lamps extinguished.

All Tests

32d If no other tests are to be made—
Restore all keys and switches.

E. Initial and Overtime Charges—Circuits Arranged For Coin or Message Register Operation With Timing ◆(LAMA-C not Provided)◆

Coin Operation—Nonwire-Spring-Relay Type Circuits

17	Select coin class of service, rate treatment having access to circuit under test.	
18b	◆If coin service improvements (dial-tone-first) provided— Operate DTNF key for initial charge or OTCN for overtime charges.◆	
19	Operate CN key.	
20	Momentarily operate ST key.	AS lamp lighted. If ETS provided— FT, S1 lamps lighted.
21	Operate ANS key, start timing . Note: The timing, action, and verification of Steps 21, 22, 23 should be carefully synchronized.	OGT-CS lamp lighted. High tone heard. If ETS provided— CS lamp lighted.

STEP	ACTION	VERIFICATION
		5-MINUTE TIMING INTERVAL In 4 minutes, 26 seconds to 4 minutes, 44 seconds— CC lamp momentarily lighted. CND lamp lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.♦
		4-MINUTE TIMING INTERVAL In 3 minutes, 33 seconds to 3 minutes, 47 seconds— CC lamp momentarily lighted. Low tone heard while CC lamp lighted. CND lamp lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.♦
22	Immediately after CND lamp lighted— Momentarily restore CN key.	CND lamp extinguished.
		5-MINUTE TIMING INTERVAL In 5 minutes, 5 seconds to 5 minutes, 15 seconds— Momentary break in high tone.
		4-MINUTE TIMING INTERVALL In 4 minutes, 4 seconds to 4 minutes, 12 seconds— Momentary break in high tone.
23	Restore TLK key in— 5-MINUTE TIMING INTERVAL 5 minutes, 25 seconds to 5 minutes, 35 seconds.	
23	4-MINUTE TIMING INTERVAL 4 minutes, 20 seconds to 4 minutes, 28 seconds.	High tone silenced. OGT-CS lamp extinguished. CC lamp momentarily lighted. CND lamp lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.♦ AS lamp extinguished. If ETS provided— FT, S1, and CS lamps extinguished.
24	Restore ANS key.	
25	Momentarily operate RL key.	All lamps extinguished.

STEP	ACTION	VERIFICATION
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Coin Operation—Wire-Spring-Relay Type Circuits

- 26 From office records, determine the initial and overtime timing intervals of circuit being tested.
- 27 Select coin class of service, rate treatment having access to circuit under test.
- 28c ♦If coin service improvements (dial-tone-first) provided—
Operate DTNF key for initial charge or OTCN key for overtime charge.

29 Operate CN key.♦

30 Momentarily operate ST key.

AS lamp lighted.
If ETS provided—
FT, S1 lamps lighted.

31 Operate ANS key, *start timing*.

If ETS provided—
CS lamp lighted.
OGT-CS lamp lighted.
High tone heard.
Depending on duration of initial timing interval (Step 26)—
CC lamp momentarily lighted. in:

Note: The timing, action, and verification of Steps 31 through 35 should be carefully synchronized.

INITIAL
TIMING
INTERVAL

CC LAMP TIME LIMITS

1 min	0 min 32 sec to 0 min 50 sec
2 min	1 min 32 sec to 1 min 50 sec
3 min	2 min 32 sec to 2 min 50 sec
4 min	3 min 32 sec to 3 min 50 sec
5 min	4 min 32 sec to 4 min 50 sec

Low tone heard while CC lamp lighted.
CND lamp lighted.
♦If trunk is arranged for coin service improvements (dial-tone-first)—
OLF lamp *does not* light.♦

32 Immediately after CND lamp lighted—
Momentarily restore CN key.

CND lamp extinguished.
In 30 seconds after CC lamp momentarily lighted in Step 31.
Momentary break in high tone heard.

STEP	ACTION	VERIFICATION
33	Immediately after momentary break in high tone (Step 32) is heard— Restart timing.	Depending on duration of overtime timing interval (Step 26)— CC lamp momentarily lighted in:

OVERTIME TIMING INTERVAL	CC LAMP TIME LIMITS
1 min	0 min 30 sec to 0 min 45 sec
1-1/1 min	1 min 0 sec to 1 min 15 sec
2 min	1 min 30 sec to 1 min 45 sec
2-1/2 min	2 min 0 sec to 2 min 15 sec
3 min	2 min 30 sec to 2 min 45 sec
3-1/2 min	3 min 0 sec to 3 min 15 sec
4 min	3 min 30 sec to 3 min 45 sec
4-1/2 min	4 min 0 sec to 4 min 15 sec
5 min	4 min 30 sec to 4 min 45 sec

Low tone heard while CC lamp lighted.
CND lamp lighted.
◆If trunk is arranged for coin service improvements (dial-tone-first)—
 OLF lamp **does not** light.◆

34	Immediately after CND lamp lighted— Momentarily restore CN key.	CND lamp extinguished. In 30 seconds after CC lamp momentarily lighted in Step 33— Momentarily break in high tone heard.
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35	In 50 seconds after CC lamp momentarily lighted in Step 33— Restore TLK key.	High tone silenced. CC lamp momentarily lighted. CND lamp lighted. ◆If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp does not light.◆ AS, OGT-CS lamps extinguished. If ETS provided— FT, S1, and CS lamps extinguished.
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36	Momentarily operate RL key.	All lamps extinguished.
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Message Register Operation—Nonwire-Spring-Relay Type Circuits (ETS, LAMA-C not Provided)

37	Select message register class of service, rate treatment having access to circuit under test.	
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38	Momentarily operate ST key.	◆If CDTT key is operated and hotel-motel billing provided—
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STEP	ACTION	VERIFICATION
		S1 lamp lighted.♦ AS lamp lighted.
39	Operate ANS key, <i>start timing</i> .	♦If CDTT key is operated and hotel-motel billing provided— CS lamp lighted.♦ OGT-CS lamp lighted. High tone heard. In 2 to 5 seconds— RP lamp lighted. 5-MINUTE TIMING INTERVAL In 5 minutes, 5 seconds to 5 minutes, 20 seconds— DR lamp lighted. 4-MINUTE TIMING INTERVAL In 4 minutes, 4 seconds to 4 minutes, 16 seconds— DR lamp lighted.
40	Momentarily operate RL key.	All lamps extinguished.
Message Register Operation—Wire-Spring-Relay Type Circuits (ETS, LAMA-C not Provided)		
41	From office records, determine timing interval for circuit being tested.	
42	Select message register class of service, rate treatment having access to circuit under test.	
43	Momentarily operate ST key.	♦If CDTT key is operated and hotel-motel billing provided— S1 lamp lighted.♦ AS lamp lighted.
44	Operate ANS key, start timing.	♦If CDTT key is operated and hotel-motel billing provided— CS lamp lighted.♦ OGT-CS lamp lighted. High tone heard. In 2 to 5 seconds— RP lamp lighted. Depending upon duration of timing interval (Step 41)— DR lamp lighted in:

STEP	ACTION	VERIFICATION	
		TIMING INTERVAL	DR LAMP TIME LIMITS
		1 min	1 min 2 sec to 1 min 20 sec
		2 min	2 min 2 sec to 2 min 20 sec
		3 min	3 min 2 sec to 3 min 20 sec
		4 min	4 min 2 sec to 4 min 20 sec
		5 min	5 min 2 sec to 5 min 20 sec
45	Momentarily operate RL key.		All lamps extinguished.
All Tests			
46d	If no other tests are to be made— Restore all keys and switches.		
F. Timed Release After Coin Collect but Before Overtime Monitoring—Circuits Arranged for Coin Operation With Timing ♦(LAMA-C or CDT not Provided)♦			
Nonwire-Spring-Relay Type Circuits			
13	Select coin class of service, rate treatment having access to circuit under test.		
14b	♦If coin service improvements (dial-tone-first) provided— Operate DTNF key for initial charge or OTCN for overtime charge.♦		
15	Operate CN key.		
16	Momentarily operate ST key.		AS lamp lighted. If ETS provided— FT, S1 lamps lighted.
17	Operate ANS key, start timing .		OGT-CS lamp lighted. High tone heard. If ETS provided— CS lamp lighted. ♦After timing interval— CC lamp momentarily lighted. CND lamp lighted. If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp does not light.♦

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STEP	ACTION	VERIFICATION
18	Restore ANS key in— 5-MINUTE TIMING INTERVAL 4 minutes 33 seconds. Restart timing.	
19	4-MINUTE TIMING INTERVAL 3 minutes, 33 seconds. Restart timing.	High tone silenced. If ETS provided— CS lamp lighted. OGT-CS lamp extinguished. In 13 to 32 seconds after ANS key is restored— AS lamp extinguished. If ETS provided— FT, S1 lamps extinguished.
19	Momentarily operate RL key.	All lamps extinguished.

Wire-Spring-Relay type Circuits

20	From office records, determine initial timing interval of circuit being tested.	
21	Select coin class of service, rate treatment having access to circuit under test.	
22b	◆If coin service improvements (dial-tone-first) provided— Operate DTNF key for initial charge or OTCN for overtime charge.◆	
23	Operate CN key. Note: Do not proceed with this test until 2 minutes have elapsed since the thermal time delay RL relay in circuit was last energized.	
24	Momentarily operate ST key.	AS lamp lighted. If ETS provided— FT, S1 lamps lighted.
25	Operate ANS key, start timing.	If ETS provided— CS lamp lighted. OGT-CS lamp lighted. High tone heard. After 38 seconds— AS, OGT_CS lamps remain lighted.
26	Restore ANS key, start timing.	If ETS provided— CS lamp extinguished. OGT-CS lamp extinguished. In 13 to 32 seconds— AS lamp extinguished. If ETS provided—

STEP	ACTION	VERIFICATION
		FT, S1 lamps extinguished. ♦CC lamp momentarily lighted— CND lamp lighted. If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.♦
		Note: The time interval between restoring ANS key and extinguishing AS lamp is the timed release interval and should be noted for use in Step 31.
27	Momentarily operate RL key.	All lamps extinguished.
28	Momentarily operate ST key.	AS lamp lighted.
	Note 1: If the initial timing interval is 1 or 2 minutes, wait 1-1/2 or 1/2 minute, respectively, before proceeding with this test.	If ETS provided— FT, S1 lamps lighted.
	Note 2: If the initial timing interval is 3, 4, or 5 minutes, proceed with this test without waiting.	
29	Repeat Step 25.	
30	Depending on initial timing interval (Step 20, timed release interval (Step 26)— Restore ANS key in:	If ETS provided— CS lamp extinguished. OGT-CS lamp extinguished.

STEP

ACTION

VERIFICATION

TABLE A			
INITIAL TIMING INTERVAL IN MINUTES	TIMED RELEASE INTERVAL IN SECONDS	RESTORE ANS KEY IN	AS LAMP TIME LIMITS
1	13-19	0 min 40 sec	0 min 53 sec to 0 min 50 sec
	19-25	0 min 34 sec	0 min 53 sec to 0 min 59 sec
	25-32	0 min 28 sec	0 min 53 sec to 1 min 0 sec
2	13-19	1 min 40 sec	1 min 53 sec to 1 min 59 sec
	19-25	1 min 34 sec	1 min 53 sec to 1 min 59 sec
	25-32	1 min 28 sec	1 min 53 sec to 2 min 0 sec
3	13-19	2 min 40 sec	2 min 53 sec to 2 min 59 sec
	19-25	2 min 34 sec	2 min 53 sec to 2 min 59 sec
	25-32	2 min 28 sec	2 min 53 sec to 3 min 0 sec
4	13-19	3 min 40 sec	3 min 53 sec to 3 min 59 sec
	19-25	3 min 34 sec	3 min 53 sec to 3 min 59 sec
	25-32	3 min 28 sec	3 min 53 sec to 4 min 0 sec
5	13-19	4 min 40 sec	4 min 53 sec to 4 min 59 sec
	19-25	4 min 34 sec	4 min 53 sec to 4 min 59 sec
	25-32	4 min 28 sec	4 min 53 sec to 5 min 0 sec

Table A indicates release time of AS, FT, S1 lamps.

High tone silenced.

31 Momentarily operate RL key.

All lamps extinguished.

32c If no other tests are to be made—
Restore all keys and switches.

G. Return of Overtime Deposit—Disconnect After Coin Collect but Before Overtime Monitoring—Circuits Arranged for Coin Operation With Timing †(LAMA-C or CDT not Provided)‡

Nonwire-Spring-Relay Type Circuits

13 Select coin class of service, rate treatment having access to circuit under test.

STEP	ACTION	VERIFICATION
14	Operate CN key.	
15b	◆If coin service improvements (dial-tone-first) provided— Operate DTNF key for initial charge or OTCN key for overtime charge.◆	
16	Momentarily operate ST key.	AS lamp lighted. If ETS provided— FT, S1 lamps lighted.
17	Operate ANS ky, <i>start timing</i> . <i>Note:</i> The timing, action, and verification of Steps 17, 18, 19 should be carefully synchronized.	If ETS provided— CS lamp lighted. OGT-CS lamp lighted. High tone heard. In 4 minutes, 26 seconds to 4 minutes, 44 seconds— CC lamp momentarily lighted. Low tone heard while CC lamp lighted. CND lamp lighted. ◆If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.◆
18	Immediately after CND lamp lighted— Momentarily restore CN key.	CND lamp extinguished.
19	In 5 minutes— Restore ANS, TLK keys.	High tone silenced. CR lamp momentarily lighted. CND lamp lighted. ◆If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.◆ AS, OGT-CS lamps extinguished. If ETS provided— FT, S1, and CS lamps extinguished.
20	Momentarily operate RL key.	All lamps extinguished.

Wire-Spring-Relay Type Circuits

21	From office records, determine initial timing interval of circuit being tested.	
22	Select coin class of service, rate treatment having access to circuit under test.	
23b	◆If coin service improvements (dial-tone-first) provided— Operate DTNF key for initial charge or OTCN key fr overtime charge.◆	

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STEP	ACTION	VERIFICATION
24	Operate CN key.	
25	Momentarily operate ST key.	AS lamp lighted. If ETS provided— FT, S1 lamps lighted.
26	Operate ANS key, <i>start timing</i> .	If ETS provided— CS lamp lighted. OGT-CS lamp lighted. High tone heard. Depending on duration of initial timing interval (Step 21)— CC lamp momentarily lighted in:

INITIAL TIMING INTERVAL	CC LAMP TIME LIMITS
1 min	0 min 32 sec to 0 min 50 sec
2 min	1 min 32 sec to 1 min 50 sec
3 min	2 min 32 sec to 2 min 50 sec
4 min	3 min 32 sec to 3 min 50 sec
5 min	4 min 32 sec to 4 min 50 sec

Low tone heard while CC lamp lighted.
CND lamp lighted.
◆If trunk is arranged for coin service improvements (dial-tone-first)—
OLF lamp *does not* light.◆

27	Immediately after CND lamp lighted— Momentarily restore CN key.	CND lamp extinguished.
28	Depending on duration of initial timing interval (Step 21)— Restore ANS, TLK keys in:	High tone silenced. CR lamp momentarily lighted. CND lamp lighted.

INITIAL TIMING INTERVAL	RESTORE ANS, TLK KEYS
1 min	1 min 0 sec
2 min	2 min 0 sec
3 min	3 min 0 sec
4 min	4 min 0 sec
5 min	5 min 0 sec

STEP	ACTION	VERIFICATION
		<p>◆If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp does not light.◆ AS, OGT-CS lamps extinguished. If ETS provided— FT, S1, and CS lamps extinguished.</p>
29	Momentarily operate RL key.	All lamps extinguished.
30c	If no other tests are to be made— Restore all keys and switches.	
<p>H. Cancel Disconnect Entry—Circuits Arranged for AMA Operation—When Disconnect Entry is Provided—Trunk Not Arranged For LAMA-C, ETS or CDT</p>		
	<p><i>Note:</i> Do not proceed with this test until the time shown below has elapsed since the thermal time delay TR relay in the circuit was last energized.</p>	
11	3 minutes where tube-type TR relay is used. 2 minutes where 235-type TR relay is used.	
11	Select AMA class of service, rate treatment having access to circuit under test.	
12	Momentarily operate ST key.	AS, IE, RN_, T_, U_ lamps lighted.
13	Operate ANS key.	OGT-CS, AE lamps lighted. High tone heard.
14	Depending on type of S2 relay provided— At relay rack frame— Insulate contact of S2 relay as follows: U1329—1B U127 or U105—1T AF10—6 AF134—6	
15	At MTF— Restore TLK, ANS keys simultaneously, start timing.	High tone silenced. At relay rack frame— In 2 to 5 seconds— MA relay released. At MTF— OGT-CS, AS lamps extinguished. DE lamp not lighted.
16	At relay rack frame— Remove insulator from S2 relay.	

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STEP	ACTION	VERIFICATION
17	At MTF— Momentarily operate RL key.	All lamps extinguished.
18a	If no other tests are to be made— Restore all keys and switches.	

I. Overflow

Junctors or Trunks Arranged for Operation With MF or DP Senders

17	Select OGT class of test.	
18	Select access digits A_ through K_ as required to route to circuit under test.	
19	Select class of service, rate treatment having access to circuit under test.	
20	Operate ROT key.	
21	Momentarily operate ST key.	AS lamp lighted. Overflow tone heard. If ETS provided— FT, S1 lamps lighted. If LAMA-C provided— S1 lamp lighted. ♦If CDTT key is operated— S1 lamp lighted.♦
22	Momentarily operate RL key.	All lamps extinguished.

Junctors Arranged for Operation With MF or DP Senders and Registers.

23	At relay rack frame— Patch ITT jack to T jack associated with junctor being tested.	
24	At MTF— Select A_ through G_ digits as required for local office code and local permanent overflow number.	
25	Select ITNP class of test.	
26	Operate SXS, COMP, HS keys.	
27	Momentarily operate ST key.	SLV lamp lighted.
28	Immediately after SLV lamp lighted— Operate LS key.	SLV lamp extinguished. Overflow tone heard.

STEP	ACTION	VERIFICATION
29	Momentarily operate RL key.	All lamps extinguished.

30	At relay rack frame— Remove patch cord.	
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Junctors Arranged for Operation With Intermarker Group Senders and Registers

31	Select MISC class of test.	
----	----------------------------	--

32	Select A_ through K_ digits as required to route to circuit under test.	
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33	Select class of service, rate treatment having access to circuit under test.	
----	--	--

34	Operate ROT key.	
----	------------------	--

35	Momentarily operate ST key.	
----	-----------------------------	--

AS lamp lighted.
Overflow tone heard.
If ETS provided—
 FT, S1 lamps lighted.
If LAMA-C provided—
 S1 lamp lighted.
♦If CDTT key is operated—
 S1 lamp lighted.♦

36	Momentarily operate RL key.	
----	-----------------------------	--

All lamps extinguished.

All Tests

37c	If no other tests are to be made— Restore all keys and switches.	
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J. Seizure—Circuits Arranged for Tandem Operation

13b	If office is arranged for tandem screening or CAMA— Select TAN_incoming class with LT translation.	
-----	---	--

14c	If office is arranged for CAMA screening— Select PCD incoming class with LT translation.	
-----	---	--

15	Momentarily operate ST key.	
----	-----------------------------	--

AS lamp lighted.
OGT-CS lamp not lighted.
If ETS provided—
 FT lamp lighted.

16	Operate ANS key.	
----	------------------	--

OGT-CS lamp lighted.
High tone heard.

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STEP	ACTION	VERIFICATION
17	Restore ANS key.	OGT-CS lamp extinguished. High tone silenced.
18	Restore TLK key.	AS lamp extinguished. If ETS provided— FT lamp extinguished.
19	Momentarily operate RL key.	All lamps extinguished.
20d	If no other tests are to be made— Restore all keys and switches.	

K. Overflow—Circuits Arranged for Tandem Operation

13b	If office is arranged for tandem screening or CAMA, and nonCAMA completion desired— Select TAN_incoming class with LT translation.	
14c	If office is arranged for CAMA screening, and CAMA completion desired— Select PCD incoming class with LT translation.	
15	Operate ROT key.	
16	Momentarily operate ST key.	AS lamp lighted. Overflow tone heard. If ETS provided— FT lamp lighted.
17	Momentarily operate RL key.	All lamps extinguished.
18d	If no other tests are to be made— Restore all keys and switches.	

L. Call to Busy Line and Overflow Test Number

17	Select MISC class of test.	
18	Select class of service, rate treatment having access to circuit under test.	
19c	If coin class of service is used— Operate CN key.	
20d	◆If coin service improvements (dial-tone-first) provided— Operate DTNF key.◆	

STEP	ACTION	VERIFICATION
<i>Incoming Trunk at Distant Office Arranged for Local Completion</i>		
21	Select access digits A_ through K_ as required to select circuit being tested and local completing busy test number.	
22	Momentarily operate ST key.	<p>◆If CDTT key is operated— S1 lamp lighted.◆ If ETS provided— FT, S1 lamps lighted. AS lamp lighted. Busy tone heard. If message class of service is used— RP lamp not lighted. If AMA class of service is used and— If trunk is not arranged for LAMA-C, ◆CDT,◆ or ETS— IE lamp lighted. AE lamp not lighted. If trunk is arranged for LAMA-C— S1 lamp lighted.</p>
23	Restore TLK key.	<p>◆If CDTT key is operated— S1 lamp extinguished.◆ AS lamp extinguished. If coin class of service is used— CR lamp momentarily lighted. CND lamp lighted. ◆If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp does not light.◆ If trunk is arranged for LAMA-C— S1 lamp extinguished. If ETS provided— FT, S1 lamps extinguished. Busy tone silenced.</p>
24	Momentarily operate RL key.	All lamps extinguished.
25	Select access digits A_ through K_ as required to select circuit being tested and local completing overflow test number.	
26	Operate TLK key.	
27c	If coin class of service is used— Momentarily restore CN key.	
28	Momentarily operate ST key.	<p>◆If CDTT key is operated— S1 lamp lighted.◆ If ETS provided—</p>

STEP	ACTION	VERIFICATION
		FT, S1 lamps lighted. AS lamp lighted. Overflow tone heard. If message class of service is used— RP lamp not lighted. If AMA class of service is used and If trunk is not arranged for LAMA-C, CDT, or ETS— IE lamp lighted. AE lamp not lighted. If trunk is arranged for LAMA-C— S1 lamp lighted.
29	Restore TLK key.	♦If CDTT key is operated— S1 lamp extinguished.♦ AS lamp extinguished. If coin class of service is used— CR lamp momentarily lighted. CND lamp lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp does not light.♦ If trunk is arranged for LAMA-C— S1 lamp extinguished. If ETS provided— FT, S1 lamps extinguished. Overflow tone silenced.
30	Momentarily operate RL key.	All lamps extinguished.
<i>Incoming Trunk at Distant Office Arranged for Through Switching</i>		
31	Select access digits A_ through K_ as required to select circuit being tested and terminating office busy test line.	
32	Momentarily operate ST key.	♦If CDTT key is operated— S1 lamp lighted.♦ If ETS provided— FT, S1 lamps lighted. AS lamp lighted. Busy tone heard. If message class of service is used— RP lamp not lighted. If AMA class of service is used and If trunk is not arranged for LAMA-C, CDT, or ETS— IE lamp lighted. AE lamp not lighted. If trunk is arranged for LAMA-C— S1 lamp lighted.

STEP	ACTION	VERIFICATION
33	Restore TLK key.	♦If CDTT key is operated— S1 lamp extinguished.♦ Busy tone silenced. AS lamp extinguished. If coin class of service is used— CR lamp momentarily lighted. CR lamp momentarily lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.♦ If trunk is arranged for LAMA-C— S1 lamp extinguished. If ETS provided— FT, S1 lamps extinguished.
34	Momentarily operate RL key.	All lamps extinguished.
35	Select access digits A_ through K_ as required to select circuit being tested and terminating office overflow test number.	
36	Operate TLK key.	
37c	If coin class of service is used— Momentarily restore CN key.	
38	Momentarily operate ST key.	♦If CDTT key is operated— S1 lamp lighted.♦ If ETS provided— FT, S1 lamps lighted. AS lamp lighted. Overflow tone heard. If message class of service is used— RP lamp not lighted. If AMA class of service is used and— If trunk is <i>not</i> arranged for LAMA-C, ♦CDT,♦ or ETS— IE lamp lighted. AE lamp not lighted. If trunk is arranged for LAMA-C— S1 lamp lighted.
39	Restore TLK key.	♦If CDTT key is operated— S1 lamp extinguished.♦ Overflow tone silenced. If coin class of service is used— CR lamp momentarily lighted. CND lamp lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.♦ If trunk is arranged for LAMA-C—

STEP	ACTION	VERIFICATION
		S1 lamp extinguished. If ETS provided— FT, S1 lamps extinguished.
40	Momentarily operate RL key.	All lamps extinguished.
41	Select access digits A_ through K_ as required to select circuit being tested and through switching office overflow test number.	
42	Operate TLK key.	
43c	If coin class of service is used— Momentarily restore CN key.	
44	Momentarily operate ST key.	◆If CDTT key is operated— S1 lamp lighted.◆ If ETS provided— FT, S1 lamps lighted. AS lamp lighted. Overflow tone heard. If message class of service is used— RP lamp not lighted. If AMA class of service is used and— If trunk is <i>not</i> arranged for LAMA-C, ◆ETS, or CDT◆ IE lamp lighted. AE lamp not lighted. If trunk is arranged for LAMA-C— S1 lamp lighted.
45	Restore TLK key.	◆If CDTT key is operated— S1 lamp extinguished.◆ Overflow tone silenced. AS lamp extinguished. If coin class of service is used— CR lamp momentarily lighted. CND lamp lighted. ◆If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.◆ If trunk is arranged for LAMA-C— S1 lamp extinguished. If ETS provided— FT, S1 lamps extinguished.
46	Momentarily operate RL key.	All lamps extinguished.
All Tests		
47e	If no other tests are to be made— Restore all keys and switches.	

STEP	ACTION	VERIFICATION
M. Call to Test Line		
17	Select ITDO class of test.	
18	Select access digits A_ through K_ to select circuit under test and terminating office incoming trunk test line.	
19	Select class of service, rate treatment having access to circuit under test.	
20c	If class of service used in test is coin— Operate CN key.	
21d	◆If coin service improvements (dial-tone-first) provided— Operate DTNF key.◆	
22	Momentarily operate ST key.	◆If CDTT key is operated— S1 lamp lighted.◆ If LAMA-C provided— S1 lamp lighted. If ETS provided— FT, S1 lamps lighted. AS lamp lighted. Ringing tone heard. Ringing, supervisory signals vary depending on type of test line used in distant office. Series of clicks given by synchronizing types of test line circuits to indicate that cycle of test has been completed. Signals received on first test indicate signals that may be expected on successive tests to same office. If ETS or LAMA-C provided ◆or CDTT key operated—◆ CS lamp follows supervisory signals from test line. OCT-CS lamp follows supervisory signals from test line.
23	Momentarily operate RL key.	All lamps extinguished.
24e	If no other tests are to be made— Restore all keys and switches.	
N. Circuit Busy		
17	Select class of service, rate treatment having access to circuit under test.	

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STEP	ACTION	VERIFICATION
18c	If coin class of service is used— Operate CN key.	
19	Insert make-busy plugs into OGT-MB jacks for all circuits using same route on same trunk link frame including circuit under test.	
20	Momentarily operate ST key.	TB lamp lighted.
21	Momentarily operate RL key.	All lamps extinguished.
22	Operate REC key.	
23	Restore TS key.	
24c	If coin class of service is used— Momentarily restore CN key.	
	Note: Perform Steps 25 and 26 without delay to prevent service seizure of circuit under test.	
25	Remove make-busy plug from OGT-MB jack of circuit under test.	
26	Momentarily operate ST key.	If circuit under test was seized by a service call or a false-busy condition exists— TB lamp lighted. If circuit under test is idle— AS lamp lighted. ◆If CDTT key is operated— S1 lamp lighted. If LAMA-C provided— S1 lamp lighted.◆ If ETS provided— FT, S1 lamps lighted. Trouble record taken. Designations perforated indicating seizure of circuit under test.
27	Momentarily operate RL key.	All lamps extinguished.
28c	If coin class of service is used— Momentarily restore CN key.	
29d	If further test of circuit is required to determine between service-busy and false-busy condition— Operate NTFS, NNTS keys.	
30d	Replace make-busy plug removed in Step 25.	

STEP	ACTION	VERIFICATION
31d	Momentarily operate ST key.	If trunk is service-busy— TB lamp lighted. If trunk is falsely-busy— AS lamp lighted. If ETS or LAMA-C provided— S1 lamp lighted. ♦If CDTT key is operated— S1 lamp lighted.♦
32d	Momentarily operate RL key.	All lamps extinguished. If ETS provided— FT lamp remains lighted.
33d	Remove make-busy plugs placed in Step 19.	If ETS provided— FT lamp extinguished.
34e	If circuit is connected at the distant office to incoming CAMA circuit with make-busy features— Request distant office to make busy incoming circuit.	
35e	Momentarily operate ST key.	TB lamp lighted.
36e	Momentarily operate RL key.	All lamps extinguished.
37e	Request distant office to restore incoming circuit to service.	
38f	If trunk under test uses carrier facilities and carrier group alarm is provided— At carrier terminal— When trunk is idle— Open channel associated with trunk under test.	If ETS provided— FT lamp lighted.
39f	At MTF— Momentarily operate ST key.	TB lamp lighted.
40f	Momentarily operate RL key.	TB lamp extinguished. If ETS provided— FT lamp remains lighted.
41f	At carrier terminal— Restore to normal channel opened in Step 38f.	If ETS provided— FT lamp extinguished.
42g	If no other tests are to be made— Restore all keys and switches.	

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STEP	ACTION	VERIFICATION
O. False-Busy and False-Idle Conditions (Not Required for ETS)		
1	At relay rack frame— Connect power to 1A fault locator and operate W-T switch to W position, HR-LRT switch to HR position.	Whistle heard.
2	Connect WT jack of fault locator to terminal of terminal strip on unit as follows:	Whistle not heard.
2	Nonwire-spring-relay type circuit using testing cord equipped with 419A tool, terminal A10.	
2	Wire-spring-relay type circuit using testing cord equipped with 624B tool, terminal 45.	
3	While circuit being tested is idle— Block operated S1 relay.	If trunk under test is the only idle trunk or the only trunk using same route on same trunk link frame— Whistle heard.
4a	If more than one trunk on same trunk link frame using same route— At MTF— Insert make-busy plugs into OGT-MB jacks of all other circuits using same route on same trunk link frame as trunk under test.	At relay rack frame— Whistle heard when last trunk made busy.
5	Momentarily remove blocking tool from S1 relay.	Whistle not heard while blocking tool removed.
6a	If more than one trunk on same trunk link frame using same route— At MTF— Remove make-busy plugs from OGT-MB jacks inserted in step 4A.	Whistle not heard if any trunks idle.
7	At relay rack frame— Connect HRG terminal to terminal of terminal strip on unit as follows:	
7	Nonwire-spring-relay type circuit, terminal A9.	
7	Wire-spring-relay type circuit, terminal 55.	
8	Disconnect WT jack of fault locator and connect to terminal as follows:	Whistle heard.
8	Nonwire-spring-relay type circuit, terminal A11.	

STEP	ACTION	VERIFICATION
8	Wire-spring-relay type circuit, terminal 15.	
9	Remove blocking tool from S1 relay.	Whistle not heard.
10	Remove test connections from terminal strip.	
P. Deleted		
Q. ETS Verification Test		
13	Select a class of service having access to trunk under test.	
14b	If coin class of service— Operate CN key.	
15c	If coin service improvements (dial-tone-first) provided— Operate DTNF key.	
16	Momentarily operate ST key.	AS, FT, and S1 lamps lighted. If answer and disconnect supervision to local customer is provided— PK lamp lighted.
17	Operate ANS key.	OGT-CS and CS lamps lighted. High tone heard. If answer and disconnect supervision to local customer is provided— PK lamp extinguished.
18	Restore TLK key.	High tone silenced. AS, FT, S1, CS, OCT-CS lamps extinguished. If coin class of service— CC lamp momentarily lighted. CND lamp lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.♦
19	Momentarily restore CN key.	CND lamp extinguished.
20	Momentarily operate RL key.	All lamps extinguished.
21	Restore ANS key.	
22	Operate TLK key.	
23	Insert make-busy plug into MB_jack associated with trunk under test.	FT lamp lighted.

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STEP	ACTION	VERIFICATION
24	Momentarily operate ST key.	TB lamp lighted. *Verifies trunk cannot be seized for service when manually made busy.*
25	Momentarily operate RL key.	All lamps extinguished. FT lamp remains lighted.
26	Operate NTFS, NTTS keys.	
27	Momentarily operate ST key.	S1 and AS lamps lighted. If answer and disconnect supervision to local customer is provided— PK lamp lighted. *Verifies trunk can override a manual made-busy condition for testing.*
28	Operate ANS key.	OGT-CS, CS lamps lighted. High tone heard. If answer and disconnect supervision to local customer is provided— PK lamp extinguished.
29	Restore ANS key; <i>start timing</i> .	OGT-CS, CS lamps extinguished. High tone silenced. If answer and disconnect supervision to local customer is provided— PK lamp lighted. In 13 to 32 seconds— S1, AS lamps extinguished. If coin class of service— CC lamp momentarily lighted. CND lamp lighted. ♦If trunk is arranged for coin service improvements (dial-tone-first)— OLF lamp <i>does not</i> light.♦
30	Momentarily operate RL key.	FT lamp remains lighted. All lamps extinguished.
31	Remove make-busy plug from MB-jack associated with trunk under test.	FT lamp extinguished.
32d	If no further tests are to be made— Restore all keys and switches.	