OUTGOING SENDER CONNECTOR SD-27888-01 AND OUTGOING SENDER LINE CONNECTOR SD-27889-01 FOR AUTOMATIC INTERCEPT SYSTEM TESTS USING MASTER TEST FRAME NO. 5 CROSSBAR OFFICES NOT ARRANGED FOR LINE LINK PULSING

1. GENERAL

1.01 This section describes methods for testing the functions of the outgoing sender connector SD-27888-01, and outgoing sender line connector SD-27889-01 for Automatic Intercept System (AIS), using the master test frame.

1.02 This section is reissued for the following reasons:

(a) To add reference to Electronic Translation System (ETS) paragraphs 1.09 and 1.10.

(b) To change paragraph 1.01.

(c) To make minor changes.

Revision arrows are used to emphasize the more significant changes. This reissue does not affect Equipment Test Lists.

1.03 The tests covered are:

1.04 Tests A, C, and D should be performed as rapidly as possible because all senders or line circuits will be removed from service during these tests.

1.05 When performing Tests A and C, traffic registers associated with PC and ASB leads will be operated. Local instructions should be followed for recording and reporting traffic register operations during these tests.

1.06 ***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.

1.07 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 When the office is arranged for ETS, the distributors 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 section for the office arrangement.

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

1.10 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 scanning to be repeated on the FT lamp at the MTF trunk test circuit. As long as the TST bit is set in the trunk register, scanning will continue to be repeated on the lamp, 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.

2. APPARATUS

Test A

2.01 Two testing cords, 893 cord, 6 feet long, each equipped with two 360A tools (1W13B cord), one KS-6278 connecting clip, and one 624B tool.

2.02 Blocking tools as required. Use tools and apply as covered in Section 069-020-801.

Test B

2.03 32A test set.

Tests A, C, D

2.04 322A (make-busy) plugs as required.

Tests B, C, D

2.05 Master test frame.

3. PREPARATION

STEP	ACTION	VERIFICATION
Tests B, C, D		
	Note: Refer to paragraph 1.06 and 1.07.	
1	At MTF— Restore all keys and switches.	
2	Momentarily operate RL key.	All lamps extinguished.
3	Select incoming nontandem class call (OA or OB with translator indication as required).	
4	Select A_ through D_ digits for local number.	
5	Select LT class of test.	
6	Operate AIRI, AIS, ND keys.	

STEP	ACTION	VERIFICATION

4. METHOD

STEP	ACTION	VERIFICATION
A. AIS Sender Preference Control		
1	Determine from office records sender preference of each marker.	
2	At MTF— Make busy all markers having sender 0 as first preference.	
3	At AIS frame— Connect ground to terminal 54 of terminal strip B.	
4	Insulate 1M of SS0, SS1, SS2 relays.	
5	Connect battery to terminal of terminal strip B that has sender 0 as first preference (terminals 16 through 28).	SS0, SSA0, SSB0, SSC0, SSD0 relays operated.
6	Momentarily operate MB relay in sender 0.	SB0 relay operated. SS0, SSA0, SSB0, SSC0, SSD0 relays released. SS1, SSA1, SSB1, SSC1, SSD1 relays operated.
7	Momentarily remove ground from terminal 54 of terminal strip B.	SB0 relay released. SS0, SSA0, SSB0, SSC0, SSD0 relays operated. SS1, SSA1, SSB1, SSC1, SSD1 relays released.
8	Block operated MB relay in sender 0.	SB0 relay operated. SS0, SSA0, SSB0, SSC0, SSD0 relays released. SS1, SSA1, SSB1, SSC1, SSD1 relays operated.
9	Block operated MB relay in sender 1.	SB1 relay operated. SS1, SSA1, SSB1, SSC1, SSD1 relays released. If three senders are provided— SS2, SSA2, SSB2, SSC2, SSD2 relays operated.
10a	If three senders are provided— Block operated MB relay in sender 2.	SB2 relay operated. SS2, SSA2, SSB2, SSC2, SSD2 relays released.
11	Momentarily operate any MCA relay.	ASB relay operated.
12	Remove battery connection made in Step 5 from terminal of terminal strip B.	
13	Remove ground connection from terminal 54 of terminal strip B.	

STEP	ACTION	VERIFICATION
14	Remove blocking tools from MB relays in senders 0 and 1.	SB0, SB1 relays released.
15a	If three senders are provided— Remove blocking tool from MB relay in sender 2.	SB2 relay released.
16	Momentarily operate SB relay in sender 0.	SB0 relay momentarily operated.
17	Momentarily operate SB relay in sender 1.	SB1 relay momentarily operated.
18a	If three senders are provided— Momentarily operate SB relay in sender 2.	SB2 relay momentarily operated.
19	At MTF— Restore to service markers made busy in Step 2.	
20	Make busy all markers having sender 1 as first preference.	
21	At AIS frame— Connect ground to terminal 54 of terminal strip B.	
22	Connect battery to terminal of terminal strip B that has sender 1 as first preference (terminals 16 through 28).	SS1, SSA1, SSB1, SSC1, SSD1 relays operated.
23	Manually operate SB1 relay.	SB1 relay remains operated. SS1, SSA1, SSB1, SSC1, SSD1 relays released. If two senders are provided— SS0, SSA0, SSB0, SSC0, SSD0 relays operated. If three senders are provided— SS2, SSA2, SSB2, SSC2, SSD2 relays operated.
24a	If three senders are provided— Manually operate SB2 relay.	SB2 relay remains operated. SS2, SSA2, SSB2, SSC2, SSD2 relays released. SS0, SSA0, SSB0, SSC0, SSD0 relays operated.
25	Remove battery connection made in Step 22 from terminal of terminal strip B.	SS0, SSA0, SSB0, SSC0, SSD0 relays released.
26	Remove ground connection from terminal 54 of terminal strip B.	SB1 relay released. If three senders are provided— SB2 relay released.
27	At MTF— Restore to service markers made busy.	

STEP	ACTION	VERIFICATION
28a	If three senders are provided— Make busy all markers having sender 2 as first preference.	
29a	At AIS frame— Connect ground to terminal 54 of terminal strip B.	
30a	Connect battery to terminal of terminal strip B that has sender 2 as first preference (terminals 16 through 28).	SS2, SSA2, SSB2, SSC2, SSD2 relays operated.
31a	Manually operate SB2 relay.	SB2 relay remains operated. SS0, SSA0, SSB0, SSC0, SSD0 relays operated. SS2, SSA2, SSB2, SSC2, SSD2 relays released.
32a	Manually operate SB0 relay.	SB0 relay remains operated. SS0, SSA0, SSB0, SSC0, SSD0 relays released.
33a	Remove battery connection made in Step 30a from terminal of terminal strip B.	SS1, SSA1, SSB1, SSC1, SSD1 relays released.
34a	Remove ground connection from terminal 54 of terminal strip B.	SB0, SB2 relays released.
35a	At MTF— Restore to service markers made busy.	
36	Remove insulators from SS0, SS1, SS2 relays.	
B. Sender and Line Seizure and Release		
7	At MTF— Make busy all markers having sender 0 as first preference.	
8	Set AIS switch to OFF.	
9	Set AIL switch to OFF.	
10	Select first marker having sender 0 as first preference.	
11	At AIS frame— Insert plug of 32A test set into RC jack.	
12	When sender 0 is not busy— Momentarily operate white (ST) button of 32A test set.	SS0, SSA0, SSB0, SSC0, SSD0 relay momentarily operated.
13	Momentarily operate red (RL) button of 32A test set.	

STEP	ACTION	VERIFICATION
14	Repeat Steps 10 through 13 using each remaining marker having sender 0 as first preference.	
15	At MTF— Restore to service markers made busy.	
16	Make busy all markers having sender 1 as first preference.	
17	Select first marker having sender 1 as first preference.	
18	At AIS frame— When sender 1 is not busy— Momentarily operate white (ST) button of 32A test set.	SS1, SSA1, SSB1, SSC1, SSD1 relays momentarily operated.
19	Momentarily operate red (RL) button of 32A test set.	
20	Repeat Steps 18 and 19 using remaining markers having sender 1 as first preference.	
21	At MTF— Restore to service markers made busy.	
22a	If three senders are provided— Make busy all markers having sender 2 as first preference.	
23a	Select first marker having sender 2 as first preference.	
24a	At AIS frame— When sender 2 is not busy— Momentarily operate white (ST) button of 32A test set.	SS2, SSA2, SSB2, SSC2, SSD2 relays momentarily operated.
25a	Momentarily operate red (RL) button of 32A test set.	
26a	Repeat Steps 24a and 25a using each remaining marker having sender 2 as first preference.	
27a	At MTF— Restore to service markers made busy.	
28	Select marker.	
29	Set AIS switch to 0.	

STEP	ACTION	VERIFICATION
30	Set AIL switch to 0.	
31	Operate REC, SIL keys.	
32	Momentarily operate ST key.	Trouble record taken. FT_, FU_, VG_, HG_, VF_ designations perforated for selected sender. ***Note:*** If selected line is service-busy or maintenance-busy, OFL lamp is lighted and trouble record will not have FT_, FU_, VG_, HG_, VF_ perforations. OV designation will be perforated.
33	Momentarily operate RL key.	All lamps extinguished.
34	Repeat Steps 29 through 33 using each sender with each line circuit.	
35	Restore all keys and switches not required in next test.	
C. All AIS Senders Busy		
7	At MTF— Select marker.	
8	Set AIS switch to OFF.	
9	Set AIL switch to OFF.	
10	Make busy all AIS senders.	
11	Momentarily operate ST key.	Within 1.5 seconds— OFL lamp lighted.
12	Momentarily operate RL key.	All lamps extinguished.
13	Operate REC key.	
14	Momentarily operate ST key. ***Note:*** In less than 1.5 seconds, release any AIS sender.	Trouble record taken with perforations corresponding to sender released. No overflow tone heard. OFL lamp ***not*** lighted. ⧫MRL,⧫ DIS1, LK2 lamps lighted.
15	Momentarily operate RL key.	All lamps extinguished.
16	Restore all AIS senders to service.	
17	Restore all keys and switches not required in next test.	

STEP	ACTION	VERIFICATION
D. All AIS Line Circuits Busy		
7	At MTF— Select marker.	
8	Make busy all AIS line circuits.	
9	Momentarily operate ST key.	OFL lamp lighted.
10	Momentarly operate RL key.	All lamps extinguished.
11	Restore to service all AIS line circuits.	