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:

A. AIS Sender Preference Control:
   This test checks that each marker has its assigned preference for an AIS sender and can seize another sender if its preferred sender is busy.

B. Sender and Line Seizure and Release:
   This test checks that each sender has access to each line.

C. All AIS Senders Busy:
   This test checks that when all senders are busy the connector will inform the marker to connect overflow tone to the calling customer.

D. All AIS Line Circuits Busy:
   This test checks that when all line circuits are busy the connector will inform the marker to connect overflow tone to the calling customer.

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

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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.


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

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<tr>
<th>STEP</th>
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<td>Tests B, C, D</td>
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<td></td>
</tr>
</tbody>
</table>

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.
4. METHOD

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).

6. Momentarily operate MB relay in sender 0.

7. Momentarily remove ground from terminal 54 of terminal strip B.

8. Block operated MB relay in sender 0.


10a. If three senders are provided—
    Block operated MB relay in sender 2.

11. Momentarily operate any MCA relay.

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

31a Manually operate SB2 relay.

32a Manually operate SB0 relay.

33a Remove battery connection made in Step 30a from terminal of terminal strip B.

34a Remove ground connection from terminal 54 of terminal strip B.

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.

13 Momentarily operate red (RL) button of 32A test set.

**VERIFICATION**

SS2, SSA2, SSB2, SSC2, SSD2 relays operated.

SS2 relay remains operated.

SB2 relay remains operated.

SS0, SSA0, SSB0, SSC0, SSD0 relays operated.

SS2, SSA2, SSB2, SSC2, SSD2 relays released.

SS0, SSA0, SSB0, SSC0, SSD0 relays released.

SS1, SSA1, SSB1, SSC1, SSD1 relays released.

SB0, SB2 relays released.
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<tbody>
<tr>
<td>14</td>
<td>Repeat Steps 10 through 13 using each remaining marker having sender 0 as first preference.</td>
<td>SS1, SSA1, SSB1, SSC1, SSD1 relays momentarily operated.</td>
</tr>
<tr>
<td>15</td>
<td>At MTF— Restore to service markers made busy.</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Make busy all markers having sender 1 as first preference.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Select first marker having sender 1 as first preference.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>At AIS frame— When sender 1 is not busy— Momentarily operate white (ST) button of 32A test set.</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Momentarily operate red (RL) button of 32A test set.</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Repeat Steps 18 and 19 using remaining markers having sender 1 as first preference.</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>At MTF— Restore to service markers made busy.</td>
<td></td>
</tr>
<tr>
<td>22a</td>
<td>If three senders are provided— Make busy all markers having sender 2 as first preference.</td>
<td></td>
</tr>
<tr>
<td>23a</td>
<td>Select first marker having sender 2 as first preference.</td>
<td></td>
</tr>
<tr>
<td>24a</td>
<td>At AIS frame— When sender 2 is not busy— Momentarily operate white (ST) button of 32A test set.</td>
<td>SS2, SSA2, SSB2, SSC2, SSD2 relays momentarily operated.</td>
</tr>
<tr>
<td>25a</td>
<td>Momentarily operate red (RL) button of 32A test set.</td>
<td></td>
</tr>
<tr>
<td>26a</td>
<td>Repeat Steps 24a and 25a using each remaining marker having sender 2 as first preference.</td>
<td></td>
</tr>
<tr>
<td>27a</td>
<td>At MTF— Restore to service markers made busy.</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Select marker.</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Set AIS switch to 0.</td>
<td></td>
</tr>
</tbody>
</table>
STEP | ACTION | VERIFICATION
--- | --- | ---
30 | Set AIL switch to 0. | 
31 | Operate REC, SIL keys. | 
32 | Momentarily operate ST key. | 
33 | Momentarily operate RL key. | 
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. | 
12 | Momentarily operate RL key. | 
13 | Operate REC key. | 
14 | Momentarily operate ST key. | 

*Note: In less than 1.5 seconds, release any AIS sender.*

15 | Momentarily operate RL key. | 
16 | Restore all AIS senders to service. | 
17 | Restore all keys and switches not required in next test. | 

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.*

All lamps extinguished.

Trouble record taken with perforations corresponding to sender released. No overflow tone heard. OFL lamp *not* lighted. MRL, DIS1, LK2 lamps lighted.

All lamps extinguished.
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<tbody>
<tr>
<td>D. All AIS Line Circuits Busy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>At MTF— Select marker.</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Make busy all AIS line circuits.</td>
<td>OFL lamp lighted.</td>
</tr>
<tr>
<td>9</td>
<td>Momentarily operate ST key.</td>
<td>All lamps extinguished.</td>
</tr>
<tr>
<td>10</td>
<td>Momentarily operate RL key.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Restore to service all AIS line circuits.</td>
<td></td>
</tr>
</tbody>
</table>