

**TRUNK FINDERS AND OUTGOING TRUNK CIRCUITS
FOR INTERCEPTING AND VERIFICATION REQUEST SERVICE**

TESTS

GROUND CUTOFF RELAY PANEL OFFICES

1. GENERAL

PAGE

1.01 This section describes a method for testing trunk finders and outgoing trunks used for intercepting and verification request service.

1.02 This section is reissued to add a test of outgoing trunks to the automatic intercept center. This reissue affects the Equipment Test List.

1.03 The tests covered are:

E. Rapid Hunting Test: This test makes a quick check of the starting and hunting features of the trunk finders.

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F. Outgoing Trunks to Automatic Intercept Center: This test checks that regular, blank, and trouble intercept calls are routed to the automatic intercept center.

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A. Regular Intercepting to Operator:

This test checks that the call is routed to a regular intercepting operator when machine ringing is received on the tip or ring conductor where trunks are not arranged for machine announcements, or when machine ringing is received on the ring conductor where trunks are arranged for machine announcements.

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B. Regular Intercepting to Announcement Machine:

This test checks that the call is routed to the announcement machine when machine ringing is received on the tip conductor.

3

C. Trouble Intercepting: This test checks that the call is routed to the operator when the call is for a plugged-up line and machine ringing is received on the tip or ring conductor.

4

D. Brush Continuity Test: This test checks the continuity of the brushes which are not tested in Test A, B, or C.

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1.04 For trunks arranged to route calls to a regular intercepting operator, Test A applies. For trunks arranged to route calls either to a regular intercepting operator or to a trouble intercepting operator, Tests A and C apply. For trunks arranged to route calls either to a regular intercepting operator, a trouble intercepting operator, or to an announcement machine, Tests A, B, and C apply. For trunks arranged to route calls to automatic intercept center, Test F applies.

1.05 Office records should be consulted to determine the test numbers used in Tests A, B, C, and D.

1.06 Local instructions should be followed with reference to recording and reporting any register operations caused by performing these tests.

2. APPARATUS

Tests A, B, C, and D.

2.01 Incoming and final selector test set per ES-20150-01 or ES-239844

2.02 3P6E cord assembly, 6 feet long, equipped with two 310 plugs, as required.

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2.03 52S head telephone set.

plug or 4W7A cord, 12 feet long, equipped with one 464C plug and one 301A plug.

2.04 322A make-busy plugs, as required.

Test F

Test C

2.06 Outgoing trunk test board, equipped with head telephone set.

2.05 4W6A cord, 12 feet long, equipped with one 464C plug, one 252A plug, and one 252B

2.07 322C test plug.

3. PREPARATION

Tests A, B, C, and D

| STEP | ACTION | VERIFICATION |
|-------------|---------------|---------------------|
|-------------|---------------|---------------------|

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|---|--|--|
| 1 | At the originating office— Make busy any idle trunk associated with the incoming selector. | |
| 2 | At the incoming trunk frame— Patch jack T of the incoming trunk made busy to the test jack E. | |
| 3 | At the trunk finder frame— Patch B-GRD jack of test set to test jack A. | |
| 4 | Patch TST jack of test set to test jack E. | |
| 5 | At test set— Operate 3WI key. | |
| 6 | Operate the compensating resistance keys. | |

Note: The resistance furnished by the test set added to the resistance wired in the incoming circuit should give a total of 1500 ohms where the L relay resistance is 1000 ohms, a total of 1000 ohms where the L relay resistance is 1200 ohms, or a total of 900 ohms where the L relay resistance is 500 ohms. Where the test set is not arranged to provide the exact resistance required, use the next lowest value it is possible to obtain.

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| 7 | Connect the head telephone set to TEL jacks of test set and operate TEL key. | |
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| STEP | ACTION | VERIFICATION |
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| 4. METHOD | | |

A. Regular Intercepting to Operator

| STEP | ACTION | VERIFICATION |
|------|---|---|
| 8 | Patch jack TL1 to jack T1. | |
| | <i>Note:</i> For trunks not arranged for machine announcements, test the ring-up relay in the tip side of the circuit on alternate test cycles by connecting jack TL1 to jack T2. | |
| 9 | Operate TH_, H_, T_, and U_ keys corresponding to number of test line circuit. | |
| 10 | Momentarily operate ST key. | Audible ringing tone heard. Operator answers and audible ringing tone silenced. If separate answering jacks or circuits for "regular" and "trouble" intercepting— Verify with operator call received on "regular" jack or circuit. |
| 11 | Momentarily operate DISC key. | Trunk finder restores to normal. |
| 12 | Repeat Steps 10 and 11 until all trunk finders have been tested. | Trunks finders allotted in proper sequence. |
| 13 | Disconnect all test cords and restore incoming trunk to normal. | |

B. Regular Intercepting to Announcement Machine

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| STEP | ACTION | VERIFICATION |
|-------------|---|--|
| 13 | Momentarily operate ST key. | Audible ringing tone heard. Cuts through to announcement machine and audible ringing tone silenced. After predetermined number of announcements, operator answers. If separate jacks are provided for regular and trouble intercepting— Verify with operator that call was received on regular jack. |
| 14 | Momentarily operate DISC key. | Trunk finder restores to normal. |
| 15 | Disconnect all test cords and restore incoming trunk to normal. | |

C. Trouble Intercepting

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| 8 | At MDF— Plug up any available line that will not interfere with service. <i>Note:</i> To test the ring-up relay in the tip side of the circuit, reverse the 464C plug at the jacks on the MDF. Test on alternate test cycles. | |
| 9 | At test set— Operate TH_, H_, T_, and U_ keys corresponding to number of line plugged up. | |
| 10 | Momentarily operate ST key. | Audible ringing tone heard. Operator answers and audible ringing tone silenced. If separate answering jacks for regular and trouble intercepting are provided— Verify with operator that call was received on trouble jack. |
| 11 | Momentarily operate DISC key. | Trunk finder restores to normal. |
| 12 | Repeat Steps 10 and 11 until all trunk finders have been tested. | Trunk finders allotted in proper sequence. |
| 13 | Disconnect all test cords, plugging-up cord, and restore incoming trunk to normal. | |

D. Brush Continuity Test

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| 8 | Operate TH_, H_, T_, and U_ keys corresponding to the number of a vacant final terminal or vacant incoming multiple being intercepted | |
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| STEP | ACTION | VERIFICATION |
|---|---|--|
| | and associated with one of the banks not previously tested. | |
| 9 | Momentarily operate ST key. | Transmission satisfactory as noted by talking to operator or by listening to announcement. |
| 10 | Momentarily operate DISC key. | Trunk finder restores to normal. |
| 11 | Repeat Steps 9 and 10 until all trunk finder brushes serving this bank have been tested. | |
| 12 | Repeat Steps 8 through 11 to test the rest of the brushes not previously tested. | |
| 13 | Disconnect all test cords and restore incoming trunk to normal. | |
| E. Rapid Hunting Test | | |
| 1 | At test line circuit associated with trunk finders to be tested— Operate T1 key. | All trunk finders find test line and return to normal in proper sequence. |
| 2 | Restore T1 key to normal. | Trunk finders return to normal. |
| F. Outgoing Trunks to Automatic Intercept Center | | |
| 1 | At outgoing trunk test board— Insert 322C test plug into MB jack of AIC trunk to be tested. | |
| | Caution: <i>Make sure the 329A make-busy plug is not used on this test. The 322C test plug makes busy all other AIC trunks in group until trunk under test is connected to test cord. Step 2 should be performed immediately after Step 1 in order to prevent possible service reaction.</i> | |
| 2 | Insert plug of regular test cord into REG test connector jack. | |
| 3 | Operate VM and T keys. | |
| | Note: For the purposes of this test, it is assumed that OGT test circuit SD-21610-01 or ES-20015-01 is used. If voltmeter test cord ES-207571 is used with SD-21941-01 or ES-226467 OGT test circuit, substitute TEST and T/VM keys for VM and T keys in Steps 3, 5, 7, 9, 11, and 13. | |

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| STEP | ACTION | VERIFICATION |
|-------------|--|---|
| 4 | After 5 seconds— Momentarily operate ringing key. | Proper announcement heard for regular intercept line (changed number). |
| 5 | Restore VM and T keys. | |
| 6 | Remove plug of test cord from REG and insert into VAC test connector jack. | |
| 7 | Operate VM and T keys. | |
| 8 | After 5 seconds— Momentarily operate ringing key. | Proper announcement heard for blank number intercept (vacant or unassigned number). |
| 9 | Restore VM and T keys. | |
| 10 | Remove plug of test cord from VAC and insert into TBL test connector jack. | |
| 11 | Operate VM and T keys. | |
| 12 | After 5 seconds— Momentarily operate ringing key. | Proper announcement heard for trouble intercept (plugged-up number). |
| 13 | Restore VM and T keys. | |
| 14 | Remove plug of test cord from TBL test connector jack. | |
| 15 | Remove 322C test plug from MB jack. | |
| 16 | Repeat Steps 1 through 15 for all AIC trunks to be tested. | |