INTERCEPTING TRUNKS FROM LOCAL SELECTOR LEVELS INTERCEPTING HANDLED AT TOLL SWITCHBOARD OR OPERATING ROOM DESK OPERATION TESTS USING TRUNK TEST SET SD-90469-01 AND SD-90469-02 (J94710A) STEP-BY-STEP SYSTEMS

1. GENERAL

1.01 This section describes a method of testing the operating features of intercepting trunks from selectors, other than toll and AB toll transmission, toll preceding and toll intermediate selectors. This method applies both to trunks concentrated on trunk finders and to trunks not concentrated on trunk finders.

1.02 The tests are made from the test jacks of selectors having direct access to the intercepting trunks.

1.03 This test covers all of the various arrangements of the trunks and associated circuits and it will be necessary, in order to perform the proper tests, to review the particular arrangements provided in an office before proceeding with the tests. It is suggested that paragraphs or subparagraphs be cross-hatched where they do not apply.

1.04 If the associated circuits are arranged for completion of intercepted calls, and if these calls are handled at a No. 3 or 3C toll switchboard, the use of a connector multiple test line circuit SD-31425-01, SD-31636-01, SD-31642-01 (or equivalent), or an office telephone in a connector group arranged to reverse the battery, is required.

1.05 The tests, when made on a routine basis, should preferably be performed during hours of light traffic.

1.06 When making these tests on a routine basis, a different shelf of selectors should be used on each cycle of tests.

1.07 When testing from a selector arranged to absorb the first digit, it will be necessary to dial an extra digit before each operation test.

1.08 When testing from a first selector in a line switch office, the master switch having direct access to the selector should be rotated to pick up disengaged plungers.

1.09 If conducting these tests from incoming selectors, the associated incoming trunks should be made busy in the approved manner during the tests. They should be restored to service when the tests have been completed.

1.10 If an "out of service" failure is encountered, the circuit involved should be made busy in the approved manner until the trouble is cleared.

2. APPARATUS

2.01 Trunk Test Set J94710A (SD-90469-01 or SD-90469-02).

2.02 Operator's Telephone Set.

2.03 Two P3E Cords equipped with No. 310 Plugs (3P7A) - only one required where a battery supply jack is not available.

2.04 One W2M Cord equipped with one No. 310 Plug and two No. 59 Cord Tips (2W12A) - for use where a battery supply jack is not available.

2.05 One P3C Cord equipped at one end with a No. 310 Plug and at the other end with a No. 240A Plug (3P2A).

2.06 One KS-6320 Orange Stick.

2.07 No. 716E (or No. 528) Receiver attached to a W2AB Cord equipped with two No. 360A Tools (2W21A Cord) and one KS-6278 Tool and one No. 411A Tool, as required.

3. PREPARATION

3.01 Connect the BAT-G jack of the test set to the 48-volt battery supply jack located on the selector frame, using a P3E cord. If a battery supply jack is not available, use the W2M cord, connecting the No. 59 cord tip of the white (tip) conductor to a spare 48-volt battery fuse or to the equipment side of a battery fuse in service, and the red (sleeve) conductor to ground. In no case should the fuse selected exceed 5 amperes.

Note: To avoid possible ground of the battery supply lead, connect the cord to the test set first and, when disconnecting, remove the cord from the test set last.

3.02 Connect the plug of the operator's telephone set to the test set jacks TEL.

3.03 Insert the No. 310 plug of the P3C cord into the T jack of the test set.

3.04 Connect together the C and TL jacks of the test set, using a P3E cord.

3.05 Operate the TRS key.

3.06 Select a made busy connector terminal where required.

4. METHOD

4.01 If the switch to be used is normal, insert the No. 240A plug of the P3C cord into the test jack of the selector. If the switch is busy, the BSY lamp will light. In this case, the plug may either be removed in order to proceed with other tests, or left in the test jack and test delayed until the BSY lamp is extinguished.

4.02 Operate and restore the DL ST key. Observe that the SL lamp lights.

4.03 Dial the level on which the trunks to be tested are terminated. Observe that the selector steps to the proper level and rotates to the first idle trunk. Audible ringing should be heard unless the operator answers in less than four seconds.

4.04 When the operator answers, audible ringing should stop. Advise the operator that a test is being made. Observe that the REV lamp does not light.

4.05 If the associated circuits are arranged for toll identification tone, verify with the operator that no tone was heard.

4.06 If the associated circuits are arranged to distinguish between "regular" intercepting and "trouble" intercepting from plugging-up lines, verify with the operator that the call was received through the "regular" intercepting answering jack.

4.07 Request the operator to remove and reinsert the plug and to observe that the trunk lamp does not relight. Observe that the selector does not release. Verify with the operator that the trunk lamp remained extinguished.

4.08 If testing trunk circuits arranged for flashing, request the operator to operate and restore the flashing key.

(a) Observe that the REV lamp lights for a short interval (approximately one-half second) if the associated circuits are arranged for flashing on local calls.

(b) Observe that the REV lamp does not light if the associated circuits are not arranged for flashing on local calls.

Trunks Concentrated on Trunk Finders

4.09 If the trunks are arranged for flashing, and the trunks outgoing from the trunk finder are not arranged for flashing on local calls but are arranged for completion of intercepted calls, proceed as in 4.10 or 4.11 and 4.12 to 4.14. Otherwise, request the operator to disconnect from the trunk jack and proceed as in 4.12 to 4.14.

4.10 Intercepting Handled at a No. 1 Toll Switchboard: Request the operator to operate momentarily the trunk "charge" key. Observe that the REV lamp lights and remains lighted.

4.11 Intercepting Handled at a No. 3 or 3C Toll Switchboard: Request the operator to complete a call to the connector multiple test line terminal ( ) or to an office telephone ( ). If the test line is used, observe that, when the terminal is reached and ringing is tripped, the REV lamp follows the interruptions of the test line and that the test line tone is heard during the intervals in which the REV lamp is lighted. If an office telephone is used, observe that the REV lamp lights when an answer condition is received.

4.12 Operate the T key. Remove the switch cover. Step the selector by momentarily opening the off-normal springs by means of the orange stick applied to the tip of the off-normal finger. Observe that the selector rotates and stops on the next idle trunk. Audible ringing should be heard unless the operator answers in less than four seconds. Restore the T key.

4.13 Proceed as in 4.04 to 4.12. This sequence of operations should be repeated until all trunks on the level have been tested.

4.14 Remove the No. 240A plug from the test jack. Observe that the switch releases. Replace the switch cover.

Trunks Not Concentrated on Trunk Finders

4.15 If the associated trunk circuits are arranged for completion of intercepted calls and these calls are handled at a No. 1 toll switchboard, request the operator to operate momentarily the trunk "charge" key. Observe that the REV lamp lights and remains lighted.

4.16 Request the operator to hold the circuit even though a disconnect signal is received.

4.17 Operate and hold the FL key. Observe that the switch releases and that the REV (if lighted) and SL lamps are extinguished. Release the FL key and then operate and restore the DL ST key. Observe that the SL lamp lights.

4.18 Again dial the level of the trunks under test. Observe that the selector steps to the level, rotates and stops on the first idle trunk beyond the trunk just tested. Audible

ringing should be heard unless the operator answers in less than four seconds.

4.19 Proceed as in 4.04 to 4.08 and 4.15 to 4.18. This sequence of operations should be repeated until the last trunk on the level is reached.

4.20 When testing the last trunk, proceed as in 4.04 to 4.08 and 4.15. Verify with the operator that a disconnect signal is being received on each of the trunks previously tested. Request the operator to take down all of the connections held for test but to hold this circuit even though a disconnect signal is received.

4.21 Operate and hold the FL key. Observe that the switch releases and that the REV (if lighted) and SL lamps are extinguished. Release the FL key and then operate and restore the DL ST key. Observe that the SL lamp relights. Check, by means of a test receiver, that the sleeve bank terminal is grounded.

4.22 Establish a talking connection with the operator as in 4.03 and 4.04. Verify that a disconnect signal is being received on the trunk just tested and request the operator to take down that connection.

4.23 If the associated circuits are arranged for completion of intercepted calls, and if these calls are handled at a No. 3 or 3C toll switchboard, proceed as in 4.24 to 4.28. Otherwise, request the operator to disconnect when the cord circuit supervisory lamp lights. Remove the No. 240A plug from the test jack and observe that the switch releases.

4.24 Request the operator to remain on the connection and to complete a call to a made busy connector terminal ( ). Busy tone should be heard. Observe that the REV lamp does not light.

4.25 Request the operator to disconnect the calling cord and to complete a call to the connector multiple test line terminal ( ) or to an office telepnone ( ). If the test line is used, observe that, when the terminal is reached and ringing is tripped, the REV lamp follows the interruptions of the test line and the test line tone is heard during the intervals in which the REV lamp is lighted. If an office telephone is used, observe that the REV lamp lights when an answer condition is received.

4.26 Operate the T key. Remove the switch cover. Momentarily open the off-normal springs by means of the orange stick applied to the tip of the off-normal finger. Observe that the selector rotates and stops on the next idle trunk. Audible ringing should be heard unless the operator answers in less than four seconds. Restore the T key.

4.27 When the operator answers, proceed as in 4.24 to 4.26. This sequence of operations should be repeated until all trunks on the level have been tested.

4.28 Remove the No. 240A plug from the test jack. Observe that the switch releases. Replace the switch cover.

5. REPORTS

5.01 The required record of these tests should be entered on the proper form.