TRUNKS FROM LOCAL SELECTOR LEVELS
CONTINUITY TEST
USING TRUNK TEST SET ES-30096-01
STEP-BY-STEP SYSTEMS

1. GENERAL

1.01 This section describes a method of testing the continuity of trunks from selector levels to selectors, connectors, and out trunk switches or repeaters. Trunks from selector levels to operators' positions and plant desks are covered in other sections.

1.02 This section is reissued to cover selectors arranged to absorb digits, to block, and to send back "no-such-number tone."

1.03 This test checks the selector levels for open or crossed trunk leads and checks the trunk polarity by means of a lamp indication.

1.04 Tests should be made on one selector on each shelf of ten selectors and a different selector should be used each time the test is performed so that eventually all switches will have been tested.

1.05 When testing a first selector in a line switch office, rotate the master switch having direct access to it to pick up any disengaged plungers.

> Caution: Care should be taken to see that primary or secondary line switches are not held when first selectors are made busy.

1.06 When testing an incoming selector, the trunks should be made busy in the approved manner.

1.07 Tests should be made on all levels, except to operators' and plant department desks, and where the selector is arranged for repeated digit absorbing, to block and send back "no-such-number tone" on the first and second digits and on levels restricted to all incoming calls to the selector.

1.08 These tests should preferably be made during periods of light traffic.

2. APPARATUS

2.01 Selector trunk test set (wagon type), ES-30096-01.

2.02 Patching cord - P3H cord (or equivalent), 10 feet long, equipped with one No. 310 plug and one No. 240A plug (3P2A cord).

2.03 Testing cord - W3M cord (or equivalent), 15 feet long, (3W4B cord) equipped with one No. 310 plug, one No. 360A tool, one No. 360B tool, one No. 360C tool, two No. 419A tools, and a KS-6278 connecting clip (or equivalent).

2.04 Patching cord - P3E cord (or equivalent), 6 feet long, (3P7A cord) equipped with two No. 310 plugs - (used with a battery supply jack).

2.05 Testing cord - W2M cord, 9 feet long, (or equivalent), equipped with one No. 310 plug (2W12A cord) - (used when a frame battery supply jack is not available).

2.06 No. 338 tool (jack spring insulator).

2.07 Operator's telephone set.

2.08 No. 477A (or No. 375A) make-busy tools, as required.

3. PREPARATION

3.01 Connect the test set B jack to the frame supply battery jack, using the P3E cord. (If a jack is not available, use the W2T cord.)

> Note: To avoid possible grounding 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 Insert the plug of the W3M cord into the test set C jack, then using a No. 477A tool, make busy the selector under test.

3.03 Connect the KS-6278 clip (tip) of the W3M cord to the selector rotary interrupter spring No. 2, the No. 419A (ring) tool to spring No. 4 of the selector E relay, and the No. 419A (sleeve) tool to spring No. 2 of the eleventh rotary step springs.

3.04 Insulate the rotary interrupter springs, using the No. 338 tool.

Note: When testing digit absorbing selectors, block the F relay operated.

3.05 When performing tests on a level involving trunks terminating in out trunk switches or terminating directly in out trunk repeaters, operate the RR key before operating the AT key and restore it when this level has been tested.

3.06 When performing tests on a level involving vacant local selector level trunks arranged to give a vacant level tone, operate the EX TRKS key before operating the AT key and restore it to the normal position when this level has been tested.

3.07 Connect the operator telephone set to the test set TEL jack and insert the No. 310 plug of the P3H cord into the test set TST jack.

4. METHOD

4.01 Remove the make-busy tool from the selector and insert the No. 240A plug of the P3H cord into the test jack.

4.02 Operate the TALK key, dial digit 1, and observe that the selector steps to the first level.

Automatic Test

4.03 Operate the AT key and restore the TALK key. Note that the test set buzzer operates, indicating that the selector has stepped to the first trunk.

4.04 The R and T lamps will light respectively, indicating that the polarity and continuity of the ring and tip conductors are satisfactory.

4.05 The R and T lamps will then extinguish, indicating that the pulse and release relays of the trunk under test have operated and that the continuity of the sleeve is satisfactory.

4.06 Observe that the selector steps to the next trunk (test set buzzer operates), indicating the release of the pulse and release relays.

4.07 The selector will continue to step as outlined (unless a busy trunk or trouble condition is encountered), and will release when the tenth trunk has been tested. The buzzer in the test set will give an audible indication of the operation of the relays which control the rotary action of the selector; that is, the test set buzzer operates each time the selector steps to another non-busy trunk. If the trunk is busy or defective, the selector will fail to step to the next trunk and the buzzer will not sound. In these cases, operate the PLS key momentarily to cause the selector to step to the next trunk.

4.08 When the selector has released, operate the TALK key and restore the AT key. Step the selector to the next level to be tested by means of the dial.

4.09 Proceed as outlined in 4.03 to 4.07 on all levels to be tested.

4.10 When all levels have been tested, remove the No. 338 tool and attached cords from the relays and springs.

4.11 Dial the selector to a working level and observe that the selector rotates properly to the first idle trunk.

4.12 Remove the No. 240 plug from the selector test jack and observe that the selector restores properly.