INCOMING REGISTER LINKS

MISCELLANEOUS TESTS

STEP-BY-STEP INTERTOLL DIALING OFFICES ARRANGED FOR CAMA

1. GENERAL

1.01 This section describes a method of making miscellaneous tests on the incoming register link circuit, SD-32265-01 in step-by-step intertoll dialing offices.

1.02 This section is reissued

(1) To revise Tests A, B, and C to block nonoperated the LA relays in the associated incoming registers so the link timing feature will not interfere with these tests.

(2) To add 1.08 as a reminder to remove these blocking tools.

This reissue does not affect the Equipment Test List.

1.03 The tests covered are:

1.04 In performing Tests A, B, and D, it will be necessary to remove one horizontal group of trunks (maximum 20) from service.

1.05 The performance of the link alarm test (Test D) will require action and/or verification at the trouble ticketer and test frame and the incoming register and link frame.

1.06 The letters A, B, etc, and digits 0, 1, etc, stamped on the RP_ relays, represent the horizontal group and the incoming register, respectively.

1.07 The tests outlined in this section may tend to delay service when they are made on a routine basis. Precautions should be taken to avoid adversely affecting traffic.

1.08 ◆Test D should be scheduled after Tests A, B, and C to insure there are no blocking tools left in the register LA relays.◆

2. APPARATUS

All Tests

2.01 322A (make-busy) plugs, as required.

Tests A and C

2.02 One 651D tool (relay contact connector holder.)

2.03 Two 893 cords, 6 feet long, each equipped with two 360A tools (1W13B cord), one KS-6278 connecting clip, and one 624A tool (terminal connector) (for use in connecting battery to winding terminals of wire-spring relays.)

2.04 893 cord, 6 feet long, equipped with two
360A tools (1W13B cord), one KS-6278
connecting clip, and one 639A tool (relay contact
connector) (for use in connecting ground to fixed
contacts on wire-spring relays.)

Test B

2.05 411A tool (for checking that relay cores are
energized.)

Tests A, B, and C

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

3. METHOD

STEP	ACTION	VERIFICATION
A.	**Trunk Preference (TP_ Relay Chain)**	
1	At trouble ticketer and test frame— Insert make-busy plugs into trunk MB_ jacks associated with horizontal group under test.	
2	At incoming register and link frame— Block nonoperated all RP_ relays associated with horizontal group of trunks under test.	
3	►At incoming register and link frame— Block nonoperated all LA relays in incoming registers associated with group of trunks under tests.◄	
4	Connect battery to L winding terminal of TP0 relay in horizontal group under test.	TP0 relay operated.
5	Block operated TP19 relay in same group.	TP0 relay remains operated.
6	Connect battery to L winding terminal of TP1 relay.	TP1 relay operated.
7	Disconnect battery from winding of TP0 relay.	TP0 relay released.
8	Reconnect battery to L winding terminal of TP0 relay momentarily.	TP0 relay not operated.
9	Repeat Steps 5 through 7 substituting the succeeding TP_ relay number in each case until TP18 and TP19 relays only are operated.	
10	Remove blocking tool from TP19 relay.	
11	Connect battery to L winding terminal of TP19 relay.	TP19 relay operated.
12	Disconnect battery from winding of TP18 relay.	TP18 relay released.

STEP	ACTION	VERIFICATION
13	Reconnect battery to L winding terminal of TP18 relay momentarily.	TP18 relay not operated.
14	Disconnect battery from winding of TP19 relay.	TP19 relay releases.
	Note: ▶If Test B is to be made after Test A, it will save time to initiate Test B now as the make-busy plugs and blocking tools for the RP_ and LA relays are already inserted.◀	
15	At incoming register and link frame— Remove blocking tools from RP_ relays.	
16	Remove blocking tools from LA relays.	
17	At trouble ticketer and test frame— Remove make-busy plugs from MB_ jacks associated with trunks.	
18	▶Repeat Steps 1 through 17 for all horizontal groups to be tested.◀	

B. Register Availability (RB_ Relay Chain)

1	At trouble ticketer and test frame— Insert make-busy plugs into trunk MB_ jacks associated with horizontal group under test.	
2	At incoming register and link frame— Block nonoperated all RB_, RP_, relays in horizontal group under test.	
3	▶Block nonoperated all LA relays in incoming registers associated with group of trunks under test.◀	
4	Block operated TP19 relay in horizontal group.	First preference RP_ relay energized. *Note:* The register preference for trunks is determined by the manner in which the RB_ relay contacts are wired in a chain. Register preference on switch A is from 0 to 9, for switch B the preference starts at 1, on switch C the preference starts at 2, etc.
5	Remove blocking tool from first preference RB_ relay, then operate manually.	First RB_ relay holds operated. First RP_ relay not energized. Second RP_ relay energized.

STEP	ACTION	VERIFICATION
		Note: If RB operates when blocking tool is removed, it may be due to associated register being busy.
6	Repeat Step 4 on second, third, etc, RB_ relay until next to last RB_ relay is operated.	All manually operated RB_ relays hold operated. RP_ relay corresponding to last manually operated RB_ relay not energized. Next RP_ relay energized. (See Note, Step 5.)
7	Operate manually last RB_ relay.	Last preference RB_ relay holds operated. All other RB_ relays used in test release.
		Note: If any RB relays fail to release, it may be due to the associated register being busy.
8	Remove blocking tools from TP relay, then RP_ relays.	Last RB_ relay released. (See Note, Step 7.)
9	At trouble ticketer and test frame— Remove make-busy plugs from trunks made busy.	
10	Repeat Steps 1 through 8 on all horizontal groups of link group to be tested.	
11	▶At incoming register and link frame— Remove blocking tools from LA relays.	
	Note: If Test C is to be performed at this time, the LA relays may be left blocked nonoperated until the completion of Test C.◀	

C. Register Preference (RP_ Relay Chain)

STEP	ACTION	VERIFICATION
1	Insert make-busy plug into IRMB_ jack of incoming register associated with group of RP_ relays under test.	
2	▶Block LA relay nonoperated in register selected in Step 1.◀	
3	Apply ground to U terminal of RPA_ relay.	RPA_ relay operated.
4	Insulate break contact 6 of last RP_ relay of group.	
5	Connect ground to U terminal of RPB_ relay.	RPB_ relay operated.
6	Disconnect ground from RPA_ relay.	RPA_ relay released.

STEP	ACTION	VERIFICATION
7	Reconnect ground to RPA_ relay momentarily.	RPA_ relay remains released.
8	Repeat Steps 4 through 6 substituting next relays in sequence, until next to last RP_ relay only is operated.	
9	Remove insulating tool from last RP_ relay.	
10	Apply ground to U terminal of last RP_ relay.	Last RP_ relay operated.
11	Disconnect ground from next to last relay.	Next to last RP_ relay released.
12	Reconnect ground to next to last relay momentarily.	Next to last RP_ relay remains released.
13	Disconnect ground from last RP_ relay.	Last RP_ relay releases.
14	Remove make-busy plug from IRMB_ jack of register.	
15	▶Remove blocking tool from LA relay.◀	
16	Repeat test on remaining RP_ relay groups to be tested.	

D. Register Link Alarm

STEP	ACTION	VERIFICATION
1	At trouble ticketer and test frame— Insert make-busy plug into IRMB_ jack associated with register under test.	
2	At incoming register and link frame— Operate manually RPA_ relay associated with register made busy. (See 1.05.)	At trouble ticketer and test circuit frame— Associated SW_ lamp lighted. Associated SRL_ lamp lighted. Audible alarm sounds.
3	Release RPA_ relay.	SRL_ lamp extinguished.
4	At trouble ticketer and test circuit frame— Momentarily operate AR key.	SW_ lamp extinguished. Audible alarm silenced.
5	Repeat Steps 2 through 4, substituting RPB_, RPC_, relays, etc, until all RP_ relays in chain have been tested.	
6	Remove make-busy plug from IRMB jack.	
7	Repeat Steps 1 through 6 on remaining RP_ relay chains.	