

TRUNK CLASS TRANSLATORS

OPERATION TEST

USING TEST SET SD-32271-01 (J38913A)

STEP-BY-STEP INTERTOLL DIALING OFFICES ARRANGED FOR CAMA

1. GENERAL

1.01 This section describes a method of testing the selection and preference features and the automatic and manual transfer features of the trunk class translator circuit SD-32269-01, using test set SD-32271-01 and the manual test circuit SD-32270-01.

1.02 This section is reissued to revise Table A and Tests A and C for traffic screening.

1.03 The tests covered are:

A. *Trunk Class Test:* This test checks that the proper trunk class information is given to a decoder from this circuit. A trouble ticket is printed to record this information.

B. *Automatic and Manual Transfer:* This test checks that the automatic transfer feature functions in the event of trouble in the regular preference chain and that the calls are served by the emergency chain of the class circuit. A test of the manual transfer also is made.

C. *Trunk Class Information (Using Test Circuit Keys):* This test checks that on a sender test the correct class information is given to the sender as controlled by the class keys on the trouble ticketer and test frame.

D. *Fuse-Busy Relays and Subgroup Alternating and Busy Tests:* This test checks that a blown fuse of a subgroup causes all calls to be routed to the other subgroup. A test also is made that the feature which alternates calls between the subgroups is suspended when either subgroup is out of service.

1.04 Actions and verifications are required at the trunk class translator circuit, the trouble ticketer frame, and at the distant office trunks.

1.05 The traffic department should be notified before starting and after completing tests so that any signals caused by performing these tests can be disregarded.

1.06 Office records should be consulted to compile a list of trunks which will provide class information to test each working CL-relay in the office.

1.07 When using DP trunks for test, each digit must be dialed within minimum period of register timer.

1.08 *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.

1.09 Local instructions should be followed for recording and reporting any register operations caused by performing these tests.

2. APPARATUS

All Tests

2.01 Test circuit, SD-32270-01.

2.02 Test set, J38913A (SD-32271-01).

SECTION 227-335-500

2.03 Three testing cords, 20 conductor cord, 10 feet long, equipped with a KS-13895 plug and a KS-13875 plug (W20D cord) (for use in connecting test set to test circuit).

Test B

2.06 Insulating tools, as required. Use tools and apply, as covered in Section 069-020-801.

Tests A, B, and D

2.04 322A (make-busy) plugs, as required.

Tests B and D

Tests A and C

2.05 Two patching cords, P3D cord, 3 feet long (3P3C cord), equipped with two 309 plugs (for use in connecting test circuit jacks to the trunk circuit and trunk class circuit test jacks).

2.07 Patching cord, P3D cord, 3 feet long (3P3C cord), equipped with two 309 plugs (for use in connecting test circuit jack to sender test jack).

3. PREPARATION

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

Test A

- 1 At trouble ticketer and test frame —
Patch test set A, B, C jacks to test circuit A, B, C jacks, respectively, using W20D cords.

Tests B, C, and D

- 2 At frame near or on which trunk class translator circuit is located —
Patch test set A, B, C jacks to test circuit A, B, C jacks, respectively, using W20D cords.
- 3 At trouble ticketer and test frame —
Patch test circuit S jack to sender test SDR- jack.

Test C

- 4 Operate TCK key.

TABLE A — DECODER TICKET

FUNCTION	POSITION	CHARACTERS PRINTED						TEST KEYS
		0	1	2	3	4	5-9	
Recorder Number	5	0	1	2	3	4		R (0-4)
Traffic Screening Class	7	0	1	2	3	4	5-9	TSC (0-9)
Trunk Class	19	A	B					
Area of Origin	20	0	1	2				AR (0-2)
Rate Class*	21	0	1					RC 0,1
Identification	22		Automatic	Operator		Non-CAMA		AD,OP-ID,NCAM

* For position 21, a non-CAMA trunk is recorded as a dash.

4. METHOD

STEP	ACTION	VERIFICATION
A. Trunk Class Test		
2	Patch test circuit TCL jack to subgroup CLAT jack, using P3D cord.	
3	Operate TCK key.	
4	Patch test circuit T jack to TRK T- test jack of trunk to be used in test, using P3D cord.	
5a	If testing with CAMA trunks — Insert make-busy plug into TRK MB- jack of trunk.	
6b	If testing with non-CAMA trunks — Make trunk busy at distant office.	
7	At test set — Operate START key.	BSY lamp lights until trunk is seized.
→ 8c	If testing with MF trunks — When BSY lamp is extinguished — Operate KP key, key number assigned for trunk test.	Trouble ticket printed. Trunk class information of trunk used for test shown in positions 5, 7, 19 through 22, per Table A. RV lamp lighted. BSY lamp flashes.
→ 9d	If testing with DP trunks — When BSY lamp is extinguished — Dial number assigned for trunk test.	Trouble ticket printed. Trunk class information of trunk used for test shown in positions 5, 7, 19 through 22, per Table A. RV lamp lighted. BSY lamp flashes.
10	Restore test set START key.	RV, BSY lamps extinguished. Equipment restores.
11a	If testing with CAMA trunks — Remove make-busy plug from trunk jack.	
12b	If testing with non-CAMA trunks — Remove busy condition from trunk in distant office.	
13	Repeat Steps 4 through 12 for each working CL-- relay in subgroup.	

SECTION 227-335-500

STEP	ACTION	VERIFICATION
14	At trouble ticketer and test frame — Remove plug of patching cord from CLAT jack, insert in CLBT jack.	
15	Repeat Steps 4 through 13 for subgroup B.	
16	Remove all test connections, restore remaining keys.	
B. Automatic and Manual Transfer		
4	At trouble ticketer and test frame — Insert make-busy plug into DRMB1 jack.	
	<i>Caution: When insulating relay springs in this test, take care not to dislodge the movable springs from the grooves of the comb.</i>	
5	At trunk class translator circuit — Momentarily insulate 5B spring of DP1 relay.	TR lamp lighted. Minor alarm sounds.
6	At test set — Operate START, CT keys.	BSY lamp lights until sender is seized.
7	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	E0 relay operates momentarily. W, Z relays both operated, if previously released, or both released, if previously operated.
8	Release START key.	
9	Remove make-busy plug from DRMB1 jack, reinsert into DRMB0 jack.	
10	Operate START key.	BSY lamp lights until sender is seized.
11	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	E1 relay operates momentarily. W, Z relays both operated, if previously released, or both released, if previously operated.
12	Release START key.	
13	Momentarily operate AR key.	TR1 relay released. TR lamp extinguished. Minor alarm retired.
14	Momentarily insulate 2B spring of DP0 relay.	TR lamp lighted. Minor alarm sounds.

STEP	ACTION	VERIFICATION
15	Momentarily operate AR key.	TR lamp extinguished. Minor alarm retired.
16	Operate TR key.	
17a	If minor alarm sounds — Momentarily operate AR key.	Minor alarm retired.
18	Operate START key.	BSY lamp lights until circuit is seized.
19	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	E1 relay operates momentarily. W, Z relays both operated, if previously released, or both released, if previously operated.
20	Release START key.	
21	Remove make-busy plug from DRMB0 jack, insert in DRMB1 jack.	
22	Operate START key.	
23	Operate KP key, key trunk test code, digits 222.	E0 relay operates momentarily.
24	Release START key.	
25	Restore TR key.	
26	Remove make-busy plug, all test connections.	

C. Trunk Class Information (Using Test Circuit Keys)

5	At trouble ticketer and test frame — Patch test circuit TCL jack to subgroup CLAT jack, using P3D cord.	
→ 6	Operate AR-, R-, RC-, TSC-, and NCAM, OP-ID, or AD class keys (see 1.04).	
7	At test set — Operate START, CT keys.	BSY lamp lighted until sender is seized.
→ 8	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	RV lamp lighted. BSY lamp flashes. Trouble ticket printed. Trunk class information furnished by keys, shown in positions 5, 7, 19 through 22, per Table A.

SECTION 227-335-500

STEP	ACTION	VERIFICATION
9	Repeat test, using each position of AR, R, RC keys until all positions of these keys have been used.	
10	At test set — Restore START key.	RV, BSY lamps extinguished.
11	Remove patching cord from CLAT jack, insert in CLBT jack.	
12	Repeat Steps 7 through 10.	
13	Remove all patching cords.	
14	Restore all keys.	

D. Fuse-Busy Relays and Subgroup Alternating and Busy Tests

Note: If a service call should be handled while these tests are being made, it may be difficult to check the alternating feature. Repeat the test several times, if necessary, noting that the feature functions satisfactorily.

Caution: Observe that FA and FB relays are operated before proceeding.

4	At miscellaneous fuse bay — Remove fuse associated with subgroup A of trunk class translator circuit.	At trunk class translator circuit — FA relay released.
5	At trouble ticketer and test frame — Insert make-busy plug into DRMB1 jack.	
6	At test set — Operate START, CT keys.	BSY lamp lights until sender is seized.
7	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCB0 relay operates momentarily.
8	Release START key.	
9	Remove make-busy plug from DRMB1 jack, insert in DRMB0 jack.	
10	Operate START key.	BSY lamp lights until sender is seized.
11	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCB1 relay operates momentarily.
12	Release START key.	

STEP	ACTION	VERIFICATION
→ 13	At miscellaneous fuse bay — Replace fuse associated with subgroup A.	At trunk class translator circuit — FA relay operated.
	<i>Caution: Observe that FA relay is operated before proceeding.</i>	
→ 14	Remove fuse associated with subgroup B.	At trunk class translator circuit — FB relay released.
15	Operate START key.	BSY lamp lights until sender is seized.
16	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCA1 relay operates momentarily.
17	Restore START key.	
18	Remove make-busy plug from DRMB0 jack, insert in DRMB1 jack.	
19	Operate START key.	BSY lamp lights until sender is seized.
20	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCA0 relay operates momentarily.
21	Restore START key.	
→ 22	At miscellaneous fuse bay — Replace fuse associated with subgroup B.	At trunk class translator circuit — FB relay operated.
23	Remove make-busy plug from DRMB1 jack.	
24	At trouble ticketer and test frame — Insert make-busy plug into DRMB0 jack.	
25	At test set — Operate START key.	BSY lamp lights until sender is seized.
26	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCA1 (or TCB1) relay operates momen- tarily.
		<i>Note: TCA — operates if Z relay is normal. TCB — operates if Z relay is operated.</i>
27	Release START key.	
28	Reoperate START key.	BSY lamp lights until sender is seized.
29	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCB1 operates if TCA1 operated in Step 26. TCA1 operates if TCB1 operated in Step 26.

SECTION 227-335-500

STEP	ACTION	VERIFICATION
30	Release START key.	
31	Remove make-busy plug from DRMB0 jack, insert in DRMB1 jack.	
32	Operate START key.	BSY lamp lights until sender is seized.
33	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCA0 (or TCB0) relay operates momentarily.
34	Release START key.	
35	Reoperate START key.	BSY lamp lights until sender is seized.
36	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCB0 relay operates if TCA0 operated in Step 33. TCA0 relay operates if TCB0 operated in Step 33.
37	With make-busy plug in DRMB1 jack, insert a make-busy plug in CLA MB jack.	
38	Operate START key.	BSY lamp lights until sender is seized.
39	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCB0 relay operates momentarily.
40	Restore START key.	
41	Transfer make-busy plug from DRMB1 jack to DRMB0 jack.	
42	Operate START key.	BSY lamp lights until sender is seized.
43	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCB1 relay operates momentarily.
44	Restore START key.	
45	Transfer make-busy plug from CLA MB jack to CLB MB jack.	
46	Operate START key.	BSY lamp lights until sender is seized.
47	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCA1 relay operates momentarily.

STEP	ACTION	VERIFICATION
48	Restore START key.	
49	Transfer make-busy plug from DRMB0 jack to DRMB1 jack.	
50	Operate START key.	BSY lamp lights until sender is seized.
51	When BSY lamp is extinguished — Operate KP key, key trunk test code, digits 222.	TCA0 relay operates momentarily.
52	Restore START key.	
53	Remove make-busy plugs from DRMB—, CL—,MB jacks.	
54	Remove all test connections.	
55	Restore all keys.	