TRANSFER TRUNKS

USING TRUNK TEST CIRCUIT SD-25918-01

NO. 5 CROSSBAR OFFICES

1. GENERAL

1.01 This section describes a method of testing transfer trunks (ST-521113) using trunk test circuit and master test frame in No. 5 Crossbar Offices.

1.02 It is reissued to:

- Update format to conform to Pacific Bell's standards.
- Include the appropriate legend on Page 1 in accordance with System Instruction (SI) 178.

Note: Marginal arrows used to denote changes are omitted.

1.03 The tests covered are:

(a) ***Regular Transfer Call:*** The following features are checked:

(1) Seizure of a selected transfer trunk through transfer trunk concentrator.

(2) Registration of trunk link frame number.

(3) Connection to transfer register.

(4) Registration of subscriber class of service.

(5) Check of the pulse repeating (A) relay.

(b) ***Reset from Line Busy Condition:*** The following features are checked:

(1) Cancelling the 60 IPM tone in the incoming trunk.

(2) Reseizure of the transfer register after cancelling the 60 IPM tone.

(c) ***Abandon Call:*** This test checks the ability of the transfer trunk to recognize an abandon transfer call.

(d) ***Timing Test:*** This tests the ability of the transfer trunk to time out after a completed transfer call.

(e) ***Transmission:*** This test checks the transmission circuit of the transfer trunk.

(f) ***Trouble and Hold Features:*** This test checks the ability of the transfer trunk to recognize a trouble condition and to hold the established connection from the incoming trunk on a trouble time out.

(g) ***Class of Service:*** This test checks the integrity of the class of service leads from the transfer trunk concentrator to the transfer register.

(h) ***Transfer Trunk Reset:*** This test (if provided) checks the ability of the transfer trunk to release on partial dial or error in dialing during transfer.

(i) ***Reset from Recording:*** This test (if provided) checks the ability of the transfer trunk to release a call connected to recording.

(j) ***Make Busy Test:*** This test checks the ability to make the transfer trunk busy from the master test frame and ensures the transfer trunk is made busy to the transfer trunk concentrator.

2. APPARATUS

Tests A through F

2.01 Master test control circuit (SD-25800-01), trunk test circuit (SD-25918-01), master test frame telephone circuit (SD-25744-01), master test frame modification circuit (ST-521130), and master test frame voltmeter test circuit (SD-25792-011).

2.02 Tests D: KS-3008 stop watch, or equivalent. Telephone located near but not connected to master test frame telephone circuit.

2.03 Test E: 12B Transmission measuring set.

2.04 Tests E and G: 1011G hand test set equipped with:

- 2W38A cord assembly
- 1 — 3P6D cord

2.05 1 322A plug (Make Busy).

2.06 All Tests — Lamps:

(a) TST — Indicates start battery is on transfer start lead from incoming test trunk.

(b) TTB — Indicates transfer trunk under test is busy.

(c) TPK Indicates TP00 relay associated with transfer group under test has operated in the transfer trunk concentrator.

3. PREPARATION

STEP	ACTION	VERIFICATION
	All Tests	
1	At master test frame restore all keys.	
2	Operate RL key momentarily.	All lamps extinguished.
3	At master test frame operate ITNP, TTL, RC4, keys; operate TT switch to TTT position.	
4	Set TTG switch to position 0–14 as required to select the transfer trunk group under test.	
5	Set TTS switch to position 0–9 to correspond with transfer trunk number in group.	
6	At trunk test panel operate TLK, SLP, and LS key.	

4. METHOD

	A. Regular Transfer Call	
7	Momentarily operate ST key.	ITNP lamp lights. TS lamp lights. R-lamp lights every 6 seconds.
8	Operate TSW key.	OGT-CS lamp lights. R- lamp extinguished.

STEP	ACTION	VERIFICATION
9	Dial digit one using master test frame dial.	Dial tone heard.
10	Dial telephone number of transmission test line (obtain from office records).	1000 Cycle heard, PK lamp lights.
11	Release TSW key, momentarily operate RL key.	All lamps extinguished.
	B. Reset from Line Busy Condition	
7	Momentarily operate ST key.	ITNP lamp lights. TS lamp lights. R- lamp lights every 6 seconds.
8	Operate TSW key.	OGT-CS lamp lights, R- lamp extinguished.
9	Dial digit one using master test frame dial.	Dial tone heard.
10	Dial telephone number of the Permanent busy number (obtain from office records).	60 IPM heard.
11	Dial digit one.	60 IPM removed.
12	Dial digit one.	Dial tone heard.
13	Release TSW key, momentarily operate RL key.	All lamps extinguished.
	C. Abandon Call	
7	Momentarily operate ST key.	ITNP lamp lights. TS lamp lights. R- lamp lights every 6 seconds.
8	Operate TSW key.	OGT-CS lamp lights, R- lamp extinguished.
9	Dial digit one using master test frame dial.	Dial tone heard.
10	Momentarily operate RL key.	ITNP, OGT-CS lamps extinguished, high tone heard.
11	Release TSW key.	TS lamp extinguished, high tone removed.
	D. Timing Test	
7	Momentarily operate ST key.	ITNP, TS lamps light, R- lamp lights every 6 seconds.
8	Operate TSW key.	OGT-CS lamp lights, R- lamps extinguished.

STEP	ACTION	VERIFICATION
9	Dial digit one using master test frame dial.	Dial tone heard.
10	Dial telephone number of directory number for telephone located near master test frame.	Test telephone ringing heard.
11	Answer test telephone.	PK lamp lights, start timing check using stop watch.
12	Hold connection for 21-26 seconds.	After 25-30 seconds PK lamp extinguished. High tone is heard in master test frame telephone set.
13	Release TSW key, momentarily operate RL key.	All lamps extinguished.
	E. Transmission	
7	Patch MEAS jack of the 12B transmission measuring set to TM jack on master test frame.	
8	Patch hand test set to DIAL jack of the 12B transmission measuring set.	
9	Operate dial key 12B test set, momentarily operate ST key.	ITNP lamp lights, R- lamp lights every 6 seconds.
10	Operate TSW key.	
11	Operate talk switch hand test set.	OGT-CS lamp lights, R- lamp extinguished.
12	Dial digit one using hand test set.	Dial tone heard in hand test set.
13	Dial telephone number transmission test number.	1000 cycle tone heard in hand test set. PK lamp lights.
14	Release dial key on 12B test set.	Meter reading on 12B set.
15	Release talk switch on hand test set.	
16	Release TSW key, momentarily operate RL key.	All lamps extinguished.
	F. Trouble and Hold Features	
7	At OGT jack bay operate HLD key.	HTA lamp lights.
8	Momentarily operate ST key.	ITNP lamps lights, R- lamp lights every 6 seconds.
9	Operate TSW key.	OGT-CS lamp lights, R- lamp extinguished.

STEP	ACTION	VERIFICATION
10	Hold TTR key operated while dialing digit one using master test frame dial.	HTA lamp lights, TO lamp lights associated with trunk under test, major alarm sounded, trouble cord dropped.
11	Release TTR key.	
12	At OGT jack bay operate ACO key.	Major alarm extinguished.
13	Release TSW key, momentarily operate RL key.	TS lamp remains lighted, all other lamps extinguished.
14	At OGT jack bay release HLD key.	HTA, TS transfer trunk TO lamps extinguished.
	G. Class of Service	
	Note: This test should be performed with marker blocked for light traffic.	
7	Restore TTL key.	
8	Operate KY key.	
9	Operate A- to D- or E- key for test line No. 1 (obtain from office records).	
10	Patch hand test set to Test Jack No. 1.	
11	Momentarily operate ST key.	ITNP lamp lights, ringing heard in test set.
12	Operate TLK key in Test Set.	Ringing stops, OGT-CS lamp lights.
13	Make dial transfer to Test Line No. 2.	Continuity failure card drops.
14	Move test set to test Jack No. 2.	Ringing heard in test set.
15	Operate TLK key in Test Set.	Ringing stops, OGT-CS lamp lights.
16	Make dial transfer to Test Line No. 3.	Continuity failure card drops.
17	Move Test Set to Test Jack No. 3.	Ringing heard in Test Set.
18	Operate TLK key in Test Set.	Ringing stops, OGT-CS lamp lights.
19	Make Dial Transfer to Test Line No. 1.	Continuity failure card drops.
20	Check cards for correct class of service punches.	

STEP	ACTION	VERIFICATION
21	Repeat steps 10 to 20 for all transfer trunks.	
	H. Transfer Trunk Reset	
7	Momentarily operate ST key.	ITNP lamp lights, TS lamp lights. R-lamp lights every 6 seconds.
8	Operate TSW key.	OGT-CS lamp lights, R- lamp extinguished.
9	Dial digit one using master test frame dial.	Dial tone heard.
10	Dial any two digits.	Dial tone removed.
11	Release TSW key (approximately 1 second).	
12	Reoperate TSW key.	Dial tone heard.
13	Release TSW key.	
14	Operate RL key.	All lamps out.
15	Restore all keys.	
	I. Reset from Recording	
7	Momentarily operate ST key.	ITNP lamp lights, TS lamp lights. R-lamp lights every 6 seconds.
8	Operate TSW key.	OGT-CS lamp lights, R- lamp extinguished.
9	Dial digit one using master test frame dial.	Dial tone heard.
10	Dial telephone number for machine announcement.	Recording heard.
11	Release TSW key (approximately 1 second).	
12	Reoperate TSW key.	Recording heard.
13	Dial digit one using master test frame dial.	Recording removed.
14	Release TSW key, operate RL key.	All lamps extinguished.

STEP	ACTION	VERIFICATION
	J. Make Busy Test	
1	Insert 322-A make busy plug in jack associated with transfer trunk under test.	RB relay in transfer trunk operated. (All RB- relays associated with transfer trunk made busy operated in transfer trunk concentrator.)
2	Repeat Step 1 until all trunks have been tested.	