DIRECT ACCESS TO NO. 101 ESS FEATURES

USING THE DID TEST CIRCUIT

CONTENTS

1. GENERAL INFORMATION

1.1 This section provides methods for testing the direct access features of a No. 1 Crossbar office to a No. 101 ESS unit using the DID Test Circuit, SD-27766-01.

1.2 The direct access features of the following circuits are exercised:

SD-25283-01 - Terminating Marker
SD-27765-01 - Terminating Marker Applique
SD-27822-01 - Direct Access Pretranslator Connector
SD-27821-01 - Direct Access Pretranslator Connector Preference Control

1.21 These circuits are used to establish a connection between the No. 1 Crossbar office and the Direct Access Pretranslator, SD-1H081-01 (DAP) of the No. 101 ESS unit which must be operational before tests of this section may be performed. The No. 101 ESS Central Office Trunks, SD-1H077-01 are also tested.

1.3 The No. 101 ESS circuitry is arranged to accept three types of test calls. These are classified as tests A, B and C.

1.31 Type A and B calls are directed to the "on line" Direct Access Pretranslator.

1.32 Type C calls are always directed to the "off line" Direct Access Pretranslator.

1.33 The terms "on line", "off line" refer to the manner in which DAP usage is controlled. One of a pair of DAP's and DAPC's (A and B) normally handles all traffic for six hours (on line). The associated No. 101 ESS Control Circuit is programmed to switch from A to B or B to A at the end of this period or if a trouble should develop.

2. TEST EQUIPMENT

2.1 Accessories

Amt	Code	Description
1	ITE-9650	Operators Telephone Set

3. TEST PROCEDURE

3.1 Prepare a test call chart using Table 1 as a guide. For tests 1 and 2 obtain a list of test numbers assigned to the individual No. 101 ESS trunks. Consult job records and telephone company records for this information.

3.11 Test numbers should normally be presented as thousands, hundreds, tens and units (TH, H, T and U) representing the switch unit, trunk group, and scan point within the trunk group respectively. However, test numbers may be presented in switch unit, trunk group and scan point format only. In this case refer to Table 2 and the DADID Trunk Number Table on PF 1H099 to convert to the TH, H, T and U presentation.

3.2 Tests should be scheduled so that each test is performed using both Direct Access Pretranslators and Direct Access Pretranslator Connectors (A and B).

4. OPERATIONAL TESTS

4.1 Trunk Test A

4.101 Operate keys and set switches as indicated in Table 1, Test No. 1.

4.102 Operate keys DA and S1. Lamp DA is lighted.

4.103 Operate key ST1. The trunk under test is seized and terminated to the No. 101 ESS milliwatt test circuit. Lamp CS1 is lighted.

4.104 Operate key TLK1. 1000 CPS tone is heard in operators telephone set.

4.105 Restore keys ST1 and TLK1. The test circuit restores to normal and lamp CS1 is extinguished.

4.106 Operate key ST1. The test call terminates to the trunk under test and lamp CS1 is lighted.

4.107 Operate key LT. Lamp LS is lighted.

4.108 Momentarily operate key LTO. Trunk relay LT and application schematic relay LTM operate.

4.109 Operate key TRM2. Using the 716D Receiver, furnished with test frame, monitor the M jack for the presence of 1000 CPS tone.

4.110 Restore all keys and switch to normal. The test circuit restores to normal and all lamps are extinguished.

4.111 Repeat tests of Paragraph 4.1 for each equipped No. 101 ESS C.O. trunk.

4.2 Trunk Test B

4.201 Operate keys and set switches as indicated in Table 1, Test No. 2.

4.202 Operate keys DA and S1. Lamp DA is lighted.

4.203 Operate key ST1. The trunk under test is seized and terminated to the No. 101 ESS balance test circuit. Lamp CS1 is lighted.

4.204 Operate key VM1. Perform a ballistic capacity test. A balanced line is indicated.

4.205 Restore keys ST1 and VM1. The test circuit restores to normal and lamp CS1 is extinguished.

4.206 Operate key ST1. The trunk under test is seized and lamp CS1 is lighted.

4.201 Operate key LT. Lamp LS is lighted.

4.208 Momentarily operate key LTO. Trunk relay LT and application schematic relay LTM operate.

4.209 Operate key VM4. Perform a ballistic capacity test. A balanced line is indicated.

4.210 Restore all keys and switches to normal. The test circuit restores to normal and all lamps are extinguished.

4.211 Repeat tests of Paragraph 4.2 for each equipped No. 101 ESS C.O. trunk.

4.3 Originating Call

4.301 Operate keys and set switches as indicated in Table 1, Test No. 2.

4.302 Operate keys DA & S1. Lamp DA is lighted.

4.303 Operate key ST1. The trunk under test is seized and lamp CS1 is lighted.

4.304 Operate key LT and momentarily operate key LTO. Trunk relay LT and application schematic relay LTM operate.

4.305 Restore key ST1. Lamp CS1 is extinguished.

4.306 Operate key DALS if loop supervision is required or DASV if simplex supervision is required and key TLK4.

4.307 Operate key SZ, trunk relay SZ is operated causing the trunk to bid for a dial tone connection. When connection is established lamp LS or SV is lighted and dial tone is heard in operators telephone set.

4.308 Using the test frame dial DP, dial the necessary digits to reach an office test line and monitor for completion of the call.

4.309 Restore all keys and switches to normal. The test circuit restores to normal and all lamps are extinguished.

4.310 Repeat tests of Paragraph 4.3 for each equipped No. 101 ESS C.O. Trunk.

4.4 Lead Integrity Test C

4.41 Operate keys and set switches as described on Table 1, Test 3.

4.42 Operate key DA. Lamp DA is lighted.

4.43 Operate key DAP-A or B to correspond with lighted lamp OLA or OLB.

4.44 Operate key ST1. Observe that input and output lamps are lighted as specified in Table 1.

4.45 Restore key DA. The "off line" DAP is released and registration lamps and relays are released.

4.46 Restore all keys and switches to normal. The test circuit restores to normal and all lamps are extinguished.

4.47 Repeat tests of Paragraph 4.4 for tests 4 thru 14, of Table 1.

ATTACHMENTS
Tables 1 and 2 on Pages 4 and 5

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TABLE 1

TEST NO.	TEST	SWITCHES									KEYS		INPUT LAMPS						OUTPUT LAMPS							
		TS	TH	H	T	U	DA PC	NS	OA/ OB	F	F10	OB	TS	TH	H	T	U	-	TH	H	T	U	CALL TREATMENT			
1	Trunk Test A (Milliwatt Term)	2		a			b	c	d	e	e	f	0,2	-	-	-	-	-	-	-	-	-				
2	Trunk Test B (Balanced Term)	3		a									1,2	-	-	-	-	-	-	-	-	-				
3	Lead Integrity Test C	4	0	0	0	0							0,4	4,7	4,7	4,7	4,7	TLKA	0	0	0	0	SC	OA	TLK	
4		4	1	1	1	1							0,4	0,1	0,1	0,1	0,1	↓	1	1	1	1	BLK	OA	↓	
5		4	2	2	2	2							0,4	0,2	0,2	0,2	0,2	↓	2	2	2	2	CHG	OA	↓	
6		4	3	3	3	3							0,4	1,2	1,2	1,2	1,2	↓	ALL	0245	0245	0245	SC	OA	↓	TLT
7		4	4	4	4	4							0,4	0,4	0,4	0,4	0,4	↓	4	4	4	4	FN	OA	↓	
8		4	5	5	5	5							0,4	1,4	1,4	1,4	1,4	TLKA	8	5	5	5	PMO	OA	↓	
9		4	6	6	6	6							0,4	1,5	1,5	1,5	1,5	-	-	-	-	-	PTM	OA	↓	TLT
10		5	0	0	0	0							1,4	4,7	4,7	4,7	4,7	TLKA	0	0	0	0	SC	OB	↓	TLT
11		5	1	1	1	1							1,4	0,1	0,1	0,1	0,1	↓	1	1	1	1	BLK	OA	↓	TLT
12		5	2	2	2	2							1,4	0,2	0,2	0,2	0,2	↓	2	2	2	2	CHG	OA	↓	TLT
13		5	3	3	3	3							1,4	1,2	1,2	1,2	1,2	↓	3	3	3	3	SC	OB	↓	
14		5	4	4	4	4							1,4	0,4	0,4	0,4	0,4	↓	4	4	4	4	FN	OB	↓	TLT
15		5	5	5	5	5	↓	↓	↓	↓	↓	↓	1,4	1,4	1,4	1,4	1,4	↓	8	5	5	5	PMO	OA	↓	TLT
16		5	6	6	6	6	b	c	d	e	e	f	1,4	1,5	1,5	1,5	1,5	TLKA	-	-	-	-	PTM	OA	TLK	TLT

(a) Set switches to positions corresponding to the switch unit and unique trunk within a particular trunk group. Switches TH and H represent the switch unit and trunk group and switches T and U represent the particular trunk within the group. Consult office records and Table 2 for this information.

(b) Operate switch DAPC to position 0, 1 or 2 corresponding to the number of the DAP that will serve call.

(c) If number series indication is required, set switch NS to desired number.

(d) Set switch to OA or OB for office A or office B indication as required.

(e) Operate switch F, and if required key F10, to the numbers of the incoming link frame on which the Incoming Test Trunk No. 1 (ITT1) is located.

(f) Operate key OB if multiple office indication is required.

TABLE 2

T	U	TRUNK GROUP 0	1	2	3	5	6
0	8	08	72	136	200	328	392
0	9	09	73	137	201	327	393
1	0	10	74	138	202	330	394
1	1	11	75	139	203	331	395
1	2	12	76	140	204	332	396
1	3	13	77	141	205	333	397
1	4	14	78	142	206	334	398
1	5	15	79	143	207	335	349
1	6	16	80	144	208	336	400
1	7	17	81	145	209	337	401
1	8	18	82	146	210	338	402
1	9	19	83	147	211	339	403
2	0	20	84	148	212	340	404
2	1	21	85	149	213	341	405
2	2	22	86	150	214	342	406
2	3	23	87	151	215	343	407
2	4	24	88	152	216	344	408
2	5	25	89	153	217	345	409
2	6	26	90	154	218	346	410
2	7	27	91	155	219	347	411
2	8	28	92	156	220	348	412
2	9	29	93	157	221	349	413
3	0	30	94	158	222	350	414
3	1	31	95	159	223	351	415
3	2	32	96	160	224	352	416
3	3	33	97	161	225	353	417
3	4	34	98	162	226	354	418
3	5	35	99	163	227	355	419

SCAN POINT

T	U	TRUNK GROUP 0	1	2	3	5	6
3	6	36	100	164	228	356	420
3	7	37	101	165	229	357	421
3	8	38	102	166	230	358	422
3	9	39	103	167	231	359	423
4	0	40	104	168	232	360	424
4	1	41	105	169	233	361	425
4	2	42	106	170	234	362	426
4	3	43	107	171	235	363	427
4	4	44	108	172	236	364	428
4	5	45	109	173	237	365	429
4	6	46	110	174	238	366	430
4	7	47	111	175	239	367	431
4	8	48	112	176	240	368	432
4	9	49	113	177	241	369	433
5	0	50	114	178	242	370	434
5	1	51	115	179	243	371	435
5	2	52	116	180	244	372	436
5	3	53	117	181	245	373	437
5	4	54	118	182	246	374	438
5	5	55	119	183	247	375	439
5	6	56	120	184	248	376	440
5	7	57	121	185	249	377	441
5	8	58	122	186	250	378	442
5	9	54	123	187	251	379	443
6	0	60	124	188	252	380	444
6	1	61	125	189	253	381	445
6	2	62	126	190	254	382	446
6	3	63	127	191	225	383	447

SCAN POINT