

3B TRAFFIC USAGE RECORDER (TUR) SD-99359-01

TESTS

USING TUR CONNECTION VERIFIER TEST SET H-400-430.

1. GENERAL

1.01 This section describes the method of testing the traffic usage recorder (TUR) SD-99359-01 using the TUR connection verifier test set H-400-430.

1.02 The tests covered are:

PAGE

A. *Scan Lead Verification:* This test checks the scan leads between the central office equipment (COE) and the scan switch wipers, associated with the switch arcs for opens, crosses, and proper assignment. 3

B. *Terminal Finder:* This test is designed to locate missing scan switch leads. 5

C. *Traffic Register Verification:* This test checks the register lead between the TUR and the traffic register for crosses and proper assignment. Traffic registers may be locally situated or may be remotely situated and operated via a remote registration circuit and E and M lead signaling facilities. This test also checks the ability of the register to follow a 20 pps pulse rate. 7

1.03 The TUR connection verifier test set consists of three portable units; the TUR UNIT, the REMOTE UNIT, and the CONTROL UNIT which are so designated on the equipment and in the tests.

1.04 The cords and connections required for the three units of the TUR connection verifier test set are shown in Fig. 1 and 2.

1.05 Test A requires action at the make-busy location of the circuit under test.

1.06 Test A requires that each circuit connected to the scan switch arcs be idle when seized for test. Busy circuits must be passed by and retested when they become idle.

1.07 In Test A where reference is made to placing a busy condition on a circuit under test, this action should be carried out in the approved manner. Depending on the nature of the circuit involved, this may require the use of a make-busy plug or opening a contact to remove the idle condition.

1.08 Test C requires verification at the traffic register bay (locally situated registers) or at the TUR frame and remotely situated register bay.

1.09 In Tests A and C the traffic register cameras, where provided, must be removed from the traffic register bays to facilitate observation of register operation. At completion of testing, the cameras should be replaced. The camera clock settings must be reset if the ac power was interrupted.

1.10 ~~Local instructions should be followed for~~ recording and reporting any register operations caused by the performance of these tests.

1.11 *Lettered Steps:* A letter a, b, or 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 conditions under which a lettered step or series of lettered steps should be made are 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.

SECTION 252-120-502

2. APPARATUS

All Tests

2.01 TUR Connection Verifier Test Set H-400-430.

2.02 Four test set cords, 12 feet long, 3 conductor, equipped with two 310 plugs (H-400-430 DET. 32 cords).

2.03 Two test set cords, 25 feet long, 14 conductor, equipped with one Amphenol 67-06P18-64 plug and one Amphenol 67-01P18-64 plug (H-400-430 DET. 33 cord).

Tests A and B

2.04 Test set cord, 12 feet long, 6 conductor, equipped with one Jones 306-CCT plug at one end and six ITE-2461 sockets at the other end. (H-400-430 DET. 35 cord.)

2.05 Two test set cords, 6 feet long, 4 conductor, equipped with two 327A plugs (H-400-430 DET. 31 cord).

Tests B and C

2.06 Test set cord, 12 feet long, one conductor, equipped with one mini-gator clip at one

end and one ITE-2455 G-1 plug at the other end. (H-400-430 DET. 34 cord).

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

3. PREPARATION

3.01 From the office records, obtain a list of the circuit or circuits associated with each usage register. This list should contain terminal and arc number assigned to each circuit and the location where each circuit may be made busy.

3.02 Where traffic registers not associated with the TUR are included in the same camera group with registers that are associated with the TUR, the PC key shall be operated to supply battery to the registers not associated with the TUR. Also, where a camera group consists only of registers not associated with the TUR, the PC key for these registers shall be operated.

3.03 A preliminary operational check of the TUR connection verifier test set should be made to provide assurance that the units are functioning properly before they are used over the central office "TEL" circuit. The procedures for this check are covered in Section 252-124-301.

3. PREPARATION (Cont)

STEP

ACTION

VERIFICATION

All Tests

1 At TUR frame—
Using H-400-430 DET. 32 cord, connect RST jack on TUR UNIT to VER-RST jack on TUR frame unit A.

2 Using H-400-430 DET. 32 cord, connect BAT A jack on TUR UNIT to BAT A jack on nearby frame.

Caution: Connect this cord into TUR unit first.

3 Using H-400-430 DET. 31 cord, connect TEL jack on TUR UNIT to TEL jack on nearby frame.

STEP	ACTION	VERIFICATION
4	METHOD	
	A. Scan Lead Verification	
4	Using H-400-430 DET. 35 cord, connect Jones plug to GB socket of the TUR UNIT and connect cord tips equipped with push-on clips to T.S. AAB punchings 50-54 in accordance with Table A.	
	<i>Note:</i> Like numbered arcs of all switches on units A, B, and C are multiplied to punchings 50-54.	
5	At TUR UNIT— Set DET switch to desired arc number (see Table B).	
6	Operate TDC-OFF-REG switch to OFF.	
7	Operate BAT A switch to ON.	BAT A lamp lighted.
8	On the TUR horizontal scan unit (if provided)— Block P relay nonoperated.	
9	On TUR unit A— Operate VER key (if provided) to ON.	
10	Operate TUR-OFF key (if provided) to OFF.	
11	At TUR frame — Using H-400-430 DET. 32 cord, connect TST jack on TUR UNIT to VER-TST jack on unit to be tested (A, B, or C).	

TABLE A

DET. 35 CORD	T.S. AAB	ARC	TUR UNIT
CORD TIPS	PUNCHING	(ALL SWITCHES)	DET SWITCH
0	50	2	0
1	51	3	1
2	52	4	2
3	53	5	3
4	54	6	4

SECTION 252-120-502

STEP	ACTION	VERIFICATION
12	Locate REMOTE UNIT and CONTROL UNIT near the central office equipment (COE) to be tested (Fig. 1).	
13	Using H-400-430 DET. 33 cord, connect CU connector on the REMOTE UNIT to the RU connector on the CONTROL UNIT. (The second DET. 33 cord should be used when additional length will facilitate testing.	
14	Using H-400-430 DET. 31 cord, connect TEL jack on REMOTE UNIT to TEL jack of office TEL circuit. <i>Note:</i> When connecting to TEL jack on test frame, be sure to connect into the office TEL circuit and not the test frame TEL circuit. <i>Caution:</i> In Step 15 connect to REMOTE UNIT BAT B jack first.	
15	Using H-400-430 DET. 32 cord, connect BAT B jack on REMOTE UNIT to BAT jack on nearby frame.	
16	At REMOTE UNIT— Operate ON-OFF switch to ON.	BAT B lamp lighted.
17a	If unit A is to be tested — At CONTROL UNIT— Operate RESET button. <i>Note:</i> If unit B is to be tested and if TUR is in reset state, Unit A will automatically scan (5 seconds).	
18b	If TUR is not in reset state— At CONTROL UNIT— Operate RESET button. <i>Note:</i> If Unit C is to be tested and if TUR is in the reset state, Units A and B will automatically scan (10 seconds).	Unit A will automatically scan (5 seconds).
19c	If TUR is not in the reset state— At the CONTROL UNIT— Operate RESET button. <i>Note:</i> Before manually stepping TUR with MAN-OFF-AUTO key on CONTROL UNIT: (1) Wait 5 seconds when intending to test Unit B to allow Unit A to complete scanning, (2)	Units A and B will automatically scan (10 seconds).

STEP	ACTION	VERIFICATION
	Wait 10 seconds when intending to test Unit C to allow Units A and B to complete scanning.	
	Note: Before each arc is tested the DET switch on the TUR UNIT must be set to the appropriate position for the association of the TU input and the CONTROL UNIT register reading. (See Table B.)	
20	At CONTROL UNIT— Step TUR to desired input terminal using MAN-OFF-AUTO key.	
21	At circuit corresponding to TUR arc- terminal — Make circuit busy per test tables C, D, E. Note: If a like numbered terminal on another arc of the same switch, becomes busy at the same time as the tested terminal, a dual tone of 697-Hz and 1447-Hz will be heard as long as the tested terminal is busy. Release and rebusy circuit several times to determine if the dual tone is a false cross indication.	On CONTROL UNIT— If terminal is properly wired— 697-Hz tone is heard. (Adjust volume control to desired level) If cross exists— Dual tone of 697-Hz and 1447-Hz is heard. If open exists— No tone is heard.
22	Record test indication.	
23	Remove busy condition.	697-Hz tone silenced.
24	Repeat Steps 18 through 24 for other inputs on same arc on unit being tested.	
25	At TUR UNIT— Set DET switch to next position to check inputs on another arc and repeat Steps 18 through 25. (Repeat above tests for all inputs on arcs of units A, B, and C if provided.)	
26	At TUR and REMOTE UNIT— Operate BAT switch to OFF.	
27c	If no further tests are to be performed— Remove all cords and blocking tools and restore all keys.	

B. Terminal Finder Test

- 5 At the TUR UNIT—
Disconnect the H-400-430 DET. 35 cord from the GB socket and connect to the COE 1 socket.

SECTION 252-120-502

STEP	ACTION	VERIFICATION
6	Operate TDC-OFF-REG switch to OFF.	
7	Operate BAT A switch to ON.	BAT A lamp lighted.
8	On the TUR horizontal scan unit (if provided)— Block P relay nonoperated.	
9	On TUR unit A— Operate VER key (if provided) to ON.	
10	Operate TUR-OFF key (is provided) to OFF.	
11	At TUR frame— Using H-400-430 DET. 32, cord connect TST jack on TUR UNIT to VER-TST jack on TUR frame unit A.	
12	At the COE frame where the first lead in trouble appears— Using H-400-430 DET. 31 cord, connect TEL jack of the REMOTE UNIT to the TEL jack of office TEL circuit.	
13	Using the H-400-430 DET. 32 cord, connected BAT jack on REMOTE UNIT to BAT jack on nearby frame.	
14	Using H-400-430 DET. 33 cord, connect CU connector on REMOTE UNIT to RU connector on CONTROL UNIT.	
15	At REMOTE UNIT— Operate BAT B key to ON.	BAT B lamp lighted.
16	At the CONTROL UNIT— Using H-400-430 DET. 34 cord, connect COE jack to usage lead of central office equipment to be tested.	
<p>Note: See Tables C through H for terminal strip and punching number. The equipment associated with the tested usage lead must be made idle when performing this test. Disconnect usage lead if necessary.</p>		
17	Operate RESET button to reset TUR and CONTROL UNIT register.	CONTROL UNIT register indicates 00—.
18	Operate MAN-OFF-AUTO key to MAN.	

STEP	ACTION	VERIFICATION
19	Step TUR through its scan cycle manually and monitor speaker for COE tone each time MAN key is released.	852-Hz tone is heard when TUR reaches scan lead being tested.
20d	If tone is not found— At TUR— Remove TST cord from unit A.	
21	Connect TST cord to unit B.	
22	Repeat Steps 18 through 20 on units B and C if provided.	
	<i>Note 1:</i> If no COE test tone is received for a full cycle of all units on the TUR, the lead is open and a new one must be connected.	
	<i>Note 2:</i> If tone is located, at TUR, determine on which arc the tone appears. This may be done by using high impedance headset or by monitoring the TEL circuit while removing one clip at a time from punchings 50-54. Relocate the missing lead.	
23	Reconnect usage lead if disconnected for test and restore circuit to normal.	
24	To test other scan leads— Repeat Steps 17 through 23.	
25	If no further tests are to be made— Remove all cords and blocking tools and restore all keys.	

C. Traffic Register Verification

1	Using H-400-430 DET. 32 cord, connect BAT A jack on TUR UNIT to BAT jack near TUR frame.	
2	On TUR UNIT— Operate BAT A switch to ON.	BAT A lamp lighted.
3	Operate TDC-OFF-REG switch to REG position.	

Connection to Traffic Register from "R" Punching

4	At TUR frame unit "A"— Remove cover from SC1 relay and block relay operated.	
---	---	--

SECTION 252-120-502

STEP	ACTION	VERIFICATION
5	At TUR UNIT— Connect H-400-430 DET. 34 cord into REG-TDC jack.	
6	Using H-400-430 DET. 34 cord, probe fixed contacts 1 through 10 of SC1 relay.	If traffic registers are locally situated— At traffic register bay— Traffic registers associated with punchings R10 through R19 score at a 20 pulse per second rate. If traffic registers are remotely situated— At TUR frame— RA- or RB- relays associated with punchings R10 through R19 pulse at a 20 pulse per second rate. At remote register location— Traffic registers controlled by RA- or RB- relays score at a 20 pulse per second rate. If any other registers are operating at 20 pulse per second rate— A cross may exist.
7a	If traffic register does not operate at 20 pulse per second rate— Attempt to adjust register using 138A tool. If adjustment is not possible, replace register.	
8	Remove blocking tools from SC1 relay.	
9	Using H-400-430 DET. 34 cord, probe fixed contacts 1 through 10 of SC1 relay.	If traffic registers are locally situated— At traffic register bay— Traffic registers associated with punchings R20 through R29 score at a 20 pulse per second rate. If traffic registers are remotely situated— At TUR frame— RA- or RB- relays associated with punchings R20 through R19 pulse at a 20 pulse per second rate. At remote register location— Traffic registers controlled by RA- or RB- relays score at 20 pulse per second rate.
10	Repeat Steps 7a for any register that does not score.	
11	Replace cover on SC1 relay.	
12	Repeat Steps 4 through 11 for units B and C if equipped.	

STEP	ACTION	VERIFICATION
13	If no further tests are to be performed— Remove all cords and restore all keys to normal.	
Connections to Traffic Registers from "G" Punchings With Horizontal Scan per SD-99359-01 Fig. 7.		
4	At TUR frame— Remove relay cover from SC2 relay and block relay operated.	
5	At TUR UNIT— Connect H-400-430 DET. 34 cord into REG-TDC jack.	
6	Using H-400-430 DET. 34 cord, probe fixed contacts 1, 2, 4, 7, and 9 of SC2 relay.	If traffic registers are locally situated— At traffic register bay— Traffic registers associated with punchings G5 through G9 score at a 20 pulse per second rate. If traffic registers are remotely situated— At TUR frame— RA- or RB- relays associated with punchings G5 through G9 pulse at a 20 pulse per second rate. At remote register location— Traffic registers controlled by RA- or RB-relays score at a 20 pulse per second rate.
7	Remove blocking tool from SC2 relay.	
8	Using H-400-430 DET. 34 cord, probe fixed contacts 1, 2, 4, 7, and 9 of SC2 relay.	If traffic registers are locally situated— At traffic register bay— Traffic registers associated with punchings G0 through G4 score at a 20 pulse per second rate. If traffic registers are remotely situated— At TUR frame— RA- or RB- relays associated with punchings G0 through G4 pulse at a 20 pulse per second rate. At remote register location— Traffic registers controlled by RA- or RB-relays score at 20 pulse per second rate.
9	Replace cover on SC2 relay.	
10	Repeat Steps 4 through 9 for units B and C if provided.	

SECTION 252-120-502

STEP	ACTION	VERIFICATION
11	If no further tests are to be performed— Remove all cords and restore all keys to normal.	
Connections to Traffic Registers from "G" Punchings with Horizontal Scan SD-99359-01. (Fig. 6)		
4	At TUR frame— Block operated HS1-5 and Z relays.	
5	Remove cover from SC1 relay	
6	Insulate break contacts 1 through 10 of SC1 relay	
7	At TUR UNIT — Connect H-400-430 DET. 34 cord into REG-TDC jack.	
8	At TUR frame— Using H-400-430 DET. 34 cord, probe fixed contacts 1 through 10 of SC1 relay.	At traffic Register frame— Registers associated with six E punchings pulse at a 20 pulse per second rate.
9	Remove blocking tool from Z relay.	
10	Using H-400-430 DET. 34 cord, probe fixed contacts 1 through 10 of SC1 relay.	At traffic register frame— Registers associated with four O punchings pulse at a 20 pulse per second rate.
11	Remove blocking tools from HS 1-5 relays.	
12	Remove insulators from the SC1 relay.	
13	Replace SC1 relay cover.	
14	Repeat Steps 4 through 13 for units B and C if equipped.	
15	If no further tests are to be performed— Remove all cords and restore all keys to normal.	

Sample Links

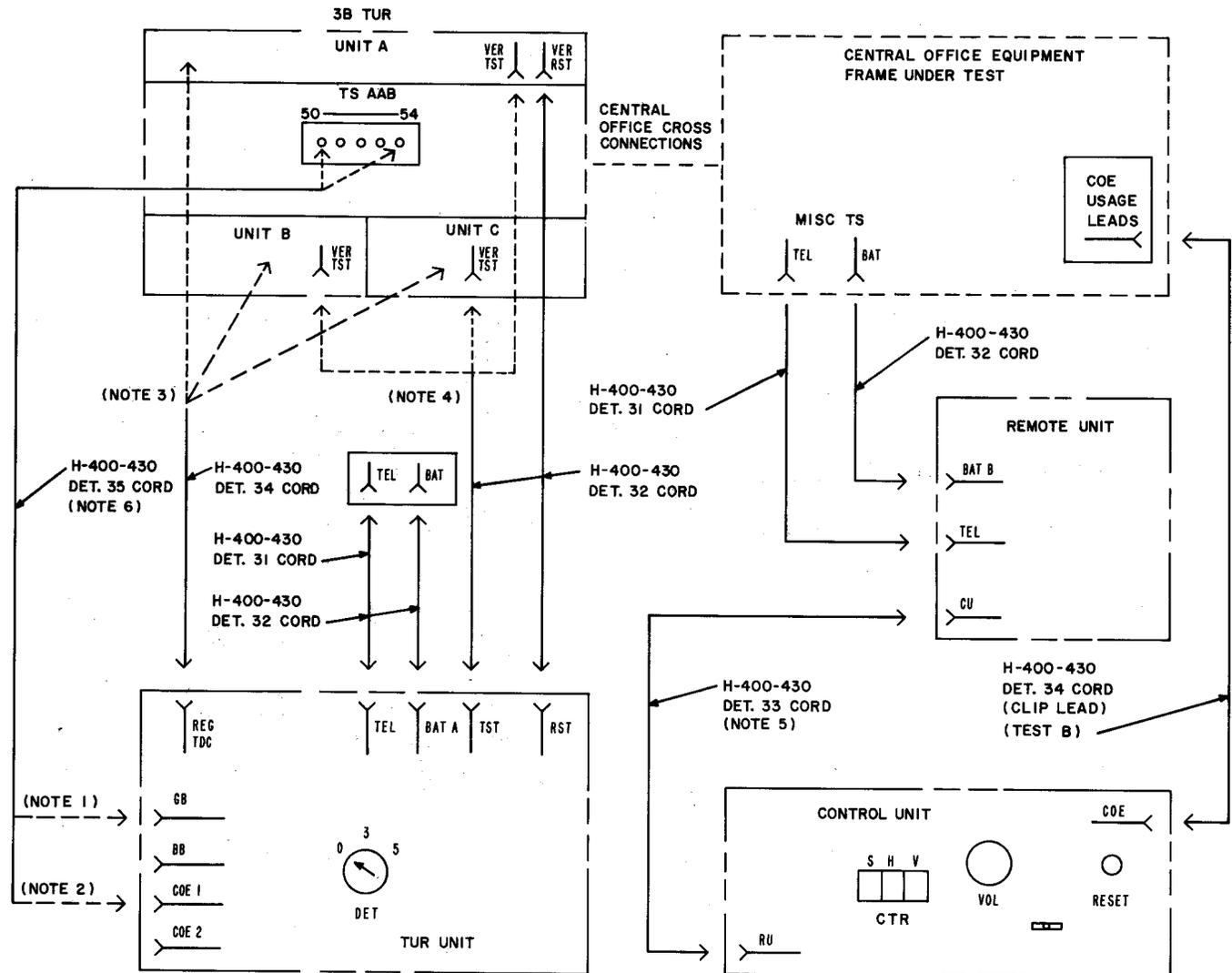
4	At TUR UNIT— Connect H-400-430 DET. 34 cord into REG-TDC jack.	
5	At TUR frame— Using H-400-430 DET. 34 cord, probe G0-79 and R0-79 leads.	At traffic register frame— Traffic register associated with each lead pulse at a 20 pulse per second rate.

STEP

ACTION

VERIFICATION

6c If no further tests are to be performed—
Remove all cords and restore all keys to normal.



NOTES:

1. USE GB CONNECTOR FOR GROUND BUSY OR GROUND IDLE DETECTORS.
2. USE COE 1 CONNECTOR SOCKET FOR TERMINAL FINDER TEST.
3. USE H-400-430 DET. 34 CORD CONNECTED AS ABOVE FOR REGISTER TEST AND TERMINAL FINDER TEST. THE DET. 34 CORD IS USED TO PROBE FIXED CONTACTS OF RELAYS SCI AND SC2 ON UNITS A, B, AND C. THE DET. 34 CORD IS ALSO USED TO PROBE G LEADS ON TERMINAL STRIP AB-E PUNCHING 00-79, OR R LEADS ON TERMINAL STRIP AB-F PUNCHINGS 00-79 AS MAY BE ASSIGNED.
4. CONNECT TST CORD TO UNIT BEING TESTED (A, B, OR C.)
5. A SECOND DET. 33 CORD IS PROVIDED AND SHOULD BE USED WHEN THE ADDITIONAL LENGTH WILL FACILITATE TESTING.
6. EQUIP ITE-2461 SOCKETS ON DET. 35 CORD WITH SIX ITE-4085 PUSH-ON CLIPS.

Fig. 1—Tests A, B, and C

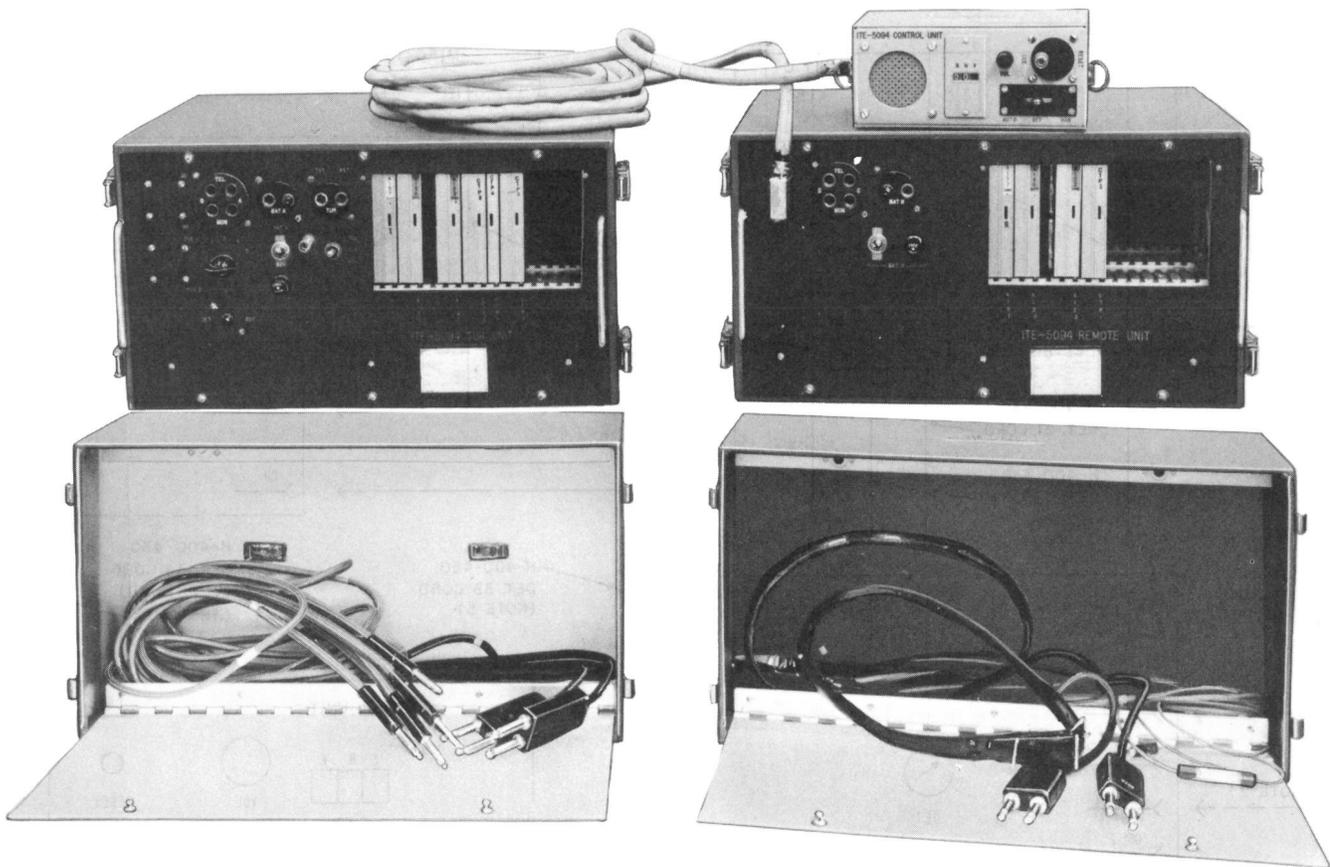


Fig. 2—TUR Connection Verifier Test Set

TABLE B
CONTROL UNIT REGISTER—TU INPUT RELATIONSHIP

CONTROL UNIT REGISTER	SWITCH POSITION		DETECTOR SWITCH SETTING				
			0	1	2	3	4
	SW1	SW2	TU INPUT				
			ARC 2	3	4	5	6
00±	22	22	—	—	—	—	—
000	1	22	0	20	40	60	80
001	2	22	1	21	41	61	81
002	3	22	2	22	42	62	82
003	4	22	3	23	43	63	83
004	5	22	4	24	44	64	84
005	6	22	5	25	45	65	85
006	7	22	6	26	46	66	86
007	8	22	7	27	47	67	87
008	9	22	8	28	48	68	88
009	10	22	9	29	49	69	89
01-	11	22	—	—	—	—	—
010	12	22	10	30	50	70	90
011	13	22	11	31	51	71	91
012	14	22	12	32	52	72	92
013	15	22	13	33	53	73	93
014	16	22	14	34	54	74	94
015	17	22	15	35	55	75	95
016	18	22	16	36	56	76	96
017	19	22	17	37	57	77	97
018	20	22	18	38	58	78	98
019	21	22	19	39	59	79	99
02-	22	22	—	—	—	—	—
020	22	1	100	120	140	160	180
021	22	2	101	121	141	161	181
022	22	3	102	122	142	162	182
023	22	4	103	123	143	163	183
024	22	5	104	124	144	164	184
025	22	6	105	125	145	165	185
026	22	7	106	126	146	166	186
027	22	8	107	127	147	167	187
028	22	9	108	128	148	168	188
029	22	10	109	129	149	169	189
03-	22	11	—	—	—	—	—
030	22	12	110	130	150	170	190
031	22	13	111	131	151	171	191
032	22	14	112	132	152	172	192
033	22	15	113	133	153	173	193
034	22	16	114	134	154	174	194
035	22	17	115	135	155	175	195
036	22	18	116	136	156	176	196
037	22	19	117	137	157	177	197
038	22	20	118	138	158	178	198
039	22	21	119	139	159	179	199
04-	22	22	—	—	—	—	—

TABLE C

NO. 1 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Terminating Sender SD-25013	Unit	38	SBM	Maint	Plug	Test Fr
	Unit	39	SB	Total	Plug/Call	Test Fr
	Unit	39	SB	Service	Opr. RL Rel	Sender
SD-25455	SDR Unit	38	SBM	Maint	Plug	Test Fr
	SDR Unit	39	SB	Total	Plug/Call	Test Fr
	SDR Unit	39	SB	Service	Opr RL Rel	Sender
SD-25434	Unit	38	SBM	Maint	Plug	Test Fr
	Unit	39	SB	Total	Plug/Call	Test Fr
	Unit	39	SB	Service	Opr RL Rel	Sender
Dist. Junctor (Noncoin) SD-26201	MISC VERT Unit	2	DJ	Total	Plug/Call	Test Fr
Zone Registra- tion Control SD-25320	Unit	35	ZR	Total	Plug/Call	Test Fr
Subscriber Sender SD-25012	Unit	01	SBM	Maint	Plug	Test Fr
	Unit	02	SB	Total	Plug/Call	Test Fr
	Unit	02	SB	Service	Opr. ON1 Rel	Sender
Originating Marker SD-25016	(MA) On Fr	4	MBM	Maint	Plug	Test Fr
	(MA) On Fr	5	MB	Service	Call	Test Fr
Terminating Marker SD-25283	(NC)	177	MBM	Maint	Plug	Test Fr
	MISC	410	MB	Total	Plug/Call	Test Fr
	MISC	411	MB	Service	Opr CK10 Rel	Marker
Auxiliary Sender SD-96479	(A)	19	SBM	Maint	Plug	Test Fr
	(A)	19	SB	Total	Plug/Call	Test Fr
	(A)	10	SB	Service	Opr. ON Rel	Sender
Office Links SD-25033	VERT NO. 2 PRI SW	RESP HALVES	0L0-9 2R0-9 5L0-9 7R0-9	Total	1. Insert MB plug in 0, 2, 5, & 7 pri sw MB jk 2. Grd SL lead	Office Link Fr

TABLE C (Cont)

NO. 1 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Incoming Links SD-25457	—	—	LL0 LL5 LR0 LR5	Total	1. Insert MB plug in 0 & 5 sec sw MB jk 2. Grd SL lead	Incoming Link Fr
Line Junctors SD-25553	—	—	LJ0,LJ5	Total	1. Insert MB plug in 0 & 5 sec sw SS jk 2. Grd SL lead	Line Link Fr
Line Links SD-25553	—	—	L0,L5	Total	1. Insert MB plug in 0 & 5 sec sw jk 2. Grd SL lead	Line Link Fr
Subscriber Line SD-25553	—	—	SL	Total	Grd SLU jk	LDF
Identifier SD-95810	(G) (G) (G)	36 46 46	IBM IB IB	Maint Service Service	Plug Call Opr ON2 Rel	Tbl Tkr Tbl Tkr Identifier
Outpulser SD-95811	(W) (B) (B)	9 7 7	OPBM- OPB- OPB-	Maint Service Service	Plug Call Opr. ON Rel	Tbl Tkr Tbl Tkr Outpulser
3-Digit Translator Connector SD-96529	(HC) (HC) (HC)	22 12 12	DTBM DTB DTB	Maint Total Service	Plug Plug/Call Opr. BY Rel	3 Dig Trnsl 3 Dig Trnsl 3 Dig Trnsl
Code Compressor SD-96527	(C) (B) (C)	44 37 44	CBM CB CBM	Total Service Maint	Opr CCB2 Rel Opr TM Rel Opr CCB2 Rel	Cd Compr Cd Compr Cd Compr
Transverter SD-25802	(MB) ON FR (MB) ON FR (MB) ON FR	45 44 44	TBM TB TB	Maint Total Service	Opr RB Rel Opr CBT Rel Opr CBT Rel	Test Fr Test Fr Transverter

TABLE C (Cont)

NO. 1 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Coin Supervisory SD-25061	(A)	14	CS	Total Service	Plug/Call Opr RL Rel	CS
	(A)	14	CS			CS
AMA Recorder SD-25873	UPPER (TRF)	1	TU	Service	Opr ON3 Rel	Recorder
Trunks	—	—	Typ:** PB,* S1, TU	Total	Typ** opr: CO, CT, D, D2, SL, SL1, TL1	Trunk

* Normally at ground potential

** Typically

TABLE D

NO. 4 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Marker SD-68388	(MCA) (MCA) (MCA) (MCA)	91 101 91 91	MB MBM MB MB	Total Maint Service Service	Plug/Call Plug Call Opr CKG Rel	Test Fr Test Fr Test Fr Marker
Decoder SD-68340	(D) (D) (D) (D)	176 166 176 176	DB DBM DB DB	Total Maint Service Service	Plug/Call Plug Call Opr CAK Rel	Test Fr Test Fr Test Fr Decoder
Sender SD-68018	FR FR FR	SB 9 SB	SB SBM SB	Total Maint Service	Plug/Call Plug Opr S Rel	Test Fr Test Fr Total
SD-68423	FR FR FR	SB SBM SB	SB SBM SB	Total Maint Service	Plug/Call Plug Opr S Rel	Test Fr Test Fr Test Fr
SD-68221	MISC MISC MISC	SB0 129 SB0	SB SBM SB	Total Maint Service	Plug/Call Plug Opr S Rel	Test Fr Test Fr Total
SD-68222	MISC MISC MISC	SB0 129 SB0	SB SBM SB	Total Maint Service	Plug/Call Plug Opr S Rel	Test Fr Test Fr Total
SD-68424	(A) (A) (A)	25 32 25	SB SBM SB	Total Maint Service	Plug/Call Plug Opr S Rel	Test Fr Test Fr Total
SD-68489	MISC MISC MISC	204 205 204	SB SBM SB	Total Maint Service	Plug/Call Plug Opr S Rel	Test Fr Test Fr Total
Controller SD-68028	CONT & CONN CONT & CONN CONT & CONN CONT & CONN	128,135 87,134 128,135 128,135	CB CBM CB CB	Total Maint Service Service	Plug/Call Plug Opr MB Rel Call	Test Fr Test Fr Controller Test Fr
Foreign Area Translator SD-68342	MISC MISC MISC	138 148 138	FTB FTBM FTB	Total Maint Service	Plug/Call Plug 1. Insulate contacts 6-7T Rel TOS 2. Opr TOS Rel	Test Fr Test Fr Translator

TABLE D (Cont)

NO. 4 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Inc Lk Fr SD-68020	—	—	L0, R2, L5, R7	Total	1. Insert MB Plug in 0, 2, 5, & 7 pri sw MB jk 2. Grd SL Lead	Link Fr
SD-68393	—	—	L0, R2, L5, R7	Total	1. Insert MB Plug in 0, 2, 5, & 7 pri sw MB jk 2. Grd SL Lead	Link Fr
Out Lk Fr SD-68022	—	—	L0, R2, L5, R7	Total	1. Insert MB plug in 0, 2, 5, & 7 sec sw MB jk 2. Grd SL Lead	Link Fr
SD-68394	—	—	L0, R2, L5, R7	Total	1. Insert MB plug in 0, 2, 5, & 7 sec sw MB jk 2. Grd SL Lead	Link Fr
Transverter SD-68496	MISC MISC MISC MISC	5 15 5 5	TB TBM TB TB	Total Maint Service Service	Plug/Call Plug Call Rls TA1 Rel	Test Fr Test Fr Test Fr Transverter
CAMA Positions SD-25695			S	Total	Opr S Rel	Position
SD-27002 w/o ANI	(A)	27	S	Total	Opr S Rel Grd S Lead ON Pchg. 3 T.S. (B)	Position
With ANI	(A)	27	S	Total	Opr S Rel	Position
SD-95853	(B)	15	S	Total	Opr S Rel	Position
CAMA DP Registers SD-68487	(REG-) (REG-) (REG-) On Inc Reg & Lk Fr	15 16 15	RB RBM RM	Total Maint Service	Plug/Call Plug Opr RB Rel	Test Fr Test Fr Register

TABLE D (Cont)

NO. 4 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
OGT To CAMA Position SD-96481	(B)	15	S	Total	Opr S Rel	Trunk
INC Trk To CAMA Pos SD-96482	(B)	23	S	Total	Opr PB Rel	Trunk
Sender Lk SD-68023	—	—	SA00-19 SB00-19	Total	1. Insert MB Plug in A & B jk of sw 2. Grd SL Lead	Link Fr
SD-68118	—	—	SA00-19 SB00-19	Total	1. Insert MB plug in A & B jk of sw 2. Grd SL lead	Link Fr
SD-68334				Total	1. Insert MB plug in A & B jk of sw 2. Grd SL lead	Link Fr
	SC0	9	SA00			
	SC0	8	SA01			
	SC1	9	SA02			
	SC1	8	SA03			
	SC2	9	SA04			
	SC2	8	SA05			
	SC3	9	SA06			
	SC3	8	SA07			
	SC4	9	SA08			
	SC4	8	SA09			
	SC5	9	SA10			
	SC5	8	SA11			
	SC6	9	SA12			
	SC6	8	SA13			
	SC7	9	SA14			
	SC7	8	SA15			
	SC8	9	SA16			
	SC8	8	SA17			
	SC9	9	SA18			
	SC9	8	SA19			
	SC0	6	SB00			
	SC0	5	SB01			
	SC1	6	SB02			
	SC1	5	SB03			
	SC2	6	SB04			
	SC2	5	SB05			
	SC3	6	SB06			
	SC3	5	SB07			

TABLE D (Cont)

NO. 4 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
	SC4	6	SB08			
	SC4	5	SB09			
	SC5	6	SB10			
	SC5	5	SB11			
	SC6	6	SB12			
	SC6	5	SB13			
	SC7	6	SB14			
	SC7	5	SB15			
	SC8	6	SB16			
	SC8	5	SB17			
	SC9	6	SB18			
	SC9	5	SB19			
SD-68486	TUR	11	SA00	Total	1. Insert MB plug in A & B jk of sw 2. Grd SL lead	Link Fr
	TUR	12	SA01			
	TUR	13	SA02			
	TUR	14	SA03			
	TUR	15	SA04			
	TUR	16	SA05			
	TUR	17	SA06			
	TUR	18	SA07			
	TUR	21	SA08			
	TUR	22	SA09			
	TUR	23	SA10			
	TUR	24	SA11			
	TUR	25	SA12			
	TUR	26	SA13			
	TUR	27	SA14			
	TUR	28	SA15			
	TUR	31	SA16			
	TUR	32	SA17			
	TUR	33	SA18			
	TUR	34	SA19			
SD-68486	TUR	35	SB00			
	TUR	36	SB01			
	TUR	37	SB02			
	TUR	38	SB03			
	TUR	41	SB04			
	TUR	42	SB05			
	TUR	43	SB06			
	TUR	44	SB07			
	TUR	45	SB08			
	TUR	46	SB09			
	TUR	47	SB10			
	TUR	48	SB11			
	TUR	51	SB12			

TABLE D (Cont)

NO. 4 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
	TUR	52	SB13			
	TUR	53	SB14			
	TUR	54	SB15			
	TUR	55	SB16			
	TUR	56	SB17			
	TUR	57	SB18			
	TUR	58	SB19			
Trunks	—	—	Typ:** GB*, MS, S	Total	Typ:** Opr CO, IN, LO, PB, S, SL	Trunk
AMA Recorder SD-25872	TRF	1	TU	Service	Opr ON3 Rel	Recorder

* Normally at ground potential

** Typically

TABLE E

NO. 5 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Dial Tone Markers SD-26001	(B) (B) (B)	20 10 20	MB MBM MB	Total Maint Service	Plug/Call Plug Opr MCB1 Rel	MTF MTF Mkr
SD-25550	CB1 CB1 CB1	242 243 242	MB MBM MB	Total Maint Service	Plug/Call Plug Rls TUR Sel	MTF MTF Mkr
Completing Markers SD-26002	CA CA CA	20 10 20	MB MBM MB	Total Maint Service	Plug/Call Plug Opr MCB1 Rel	MTF MTF Mkr
SD-25550	CB1 CB1 CB1	242 243 242	MB MBM MB	Total Maint Service	Plug/Call Plug Rls TUR Rel	MTF MTF Mkr
Transverters SD-25591	TVC TVC TVC TVC	137 138 137 137	TB TBM TB TB	Total Maint Service Service	Plug/Call Plug Test Call Rls CH1 Rel	MTF MTF MTF TV
SD-26010	B* B* B* B* *Top of CTV	13 14 13 13	TB TBM TB TB	Total Maint Service Service	Plug/Call Plug Test Call Rls CH1 Rel	MTF MTF MTF TV
SD-26161	D D D	9 10 9	TB TBM TB	Total Maint Service	Plug/Call Plug Opr CBR Rel	MTF MTF TV
Originating Registers SD-26040	C B B B B	45 28 14 28 14	RBM RB PBC RB PBC	Maint Service TT* Service TT*	Plug Test Call Test Call Opr. ON Rel Opr. MF Rel	MTF MTF MTF OR OR
SD-25551	(E) (E) (C) (E) (C)	18 12 22 12 22	RBM RB PBC RB PBC	Maint Service TT* Service TT* TT*	Plug Test Call Test Call Opr ON 1 Rel Opr. MF Rel	MTF MTF MTF OR OR

TABLE E (Cont)

NO. 5 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Outgoing Sdr MF SD-25580	(D) (D) (D)	28 5 28	SB SBM SB	Total Maint Service	Plug/Call MB Plug Opr SB Rel	MTF MTF Sender
SD-26051	(B) (B) (B)	14 15 14	SB SBM SB	Total Maint Service	Plug/Call MB Plug Opr SB Rel	MTF MTF Sender
RP SD-25732	(D) (D) (D)	28 5 28	SB SBM SB	Total Maint Service	Plug/Call MB Plug Opr SB Rel	MTF MTF Sender
SD-26052	(B) (B) (B)	14 15 14	SB SBM SB	Total Maint Service	Plug/Call MB Plug Opr SB Rel	MTF MTF Sender
DP SD-25779			SB SBM SB	Total Maint Service	Plug/Call MB Plug Opr SB Rel	MTF MTF Sender
IMG SD-25826	(K) (K) (K)	17 7 17	SB SBM SB	Total Maint Service	Plug/Call MB Plug Opr SB Rel	MTF MTF Sender
Incoming Registers DP SD-25729	(D) (C) (D)	22 5 22	RB RBM RB	Total Maint Service	Plug/Call Plug Opr MB Rel	MTF MTF IR
SD-26041	(B) (B) (B)	54 44 54	RB RBM RB	Total Maint Service	Plug/Call Plug Opr MB Rel	MTF MTF IR
MF SD-25730	(D) (C) (D)	22 5 22	RB RBM RB	Total Maint Service	Plug/Call Plug Opr MB Rel	MTF MTF IR
SD-26042	(D) (D) (D)	15 44 15	RB RBM RB	Total Maint Service	Plug/Call Plug Opr MB Rel	MTF MTF IR
RP SD-25731	(D) (C) (D)	22/26 5/12 22/26	RB RBM RB	Total Maint Service	Plug/Call Plug Opr MB Rel	MTF MTF IR

TABLE E (Cont)

NO. 5 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
SD-26043	(B) (B) (B)	45 35 45	RB RBM RB	Total Maint Service	Plug/Call Plug Opr MB Rel	MTF MTF IR
Subscriber Line Usage SD-25546	—	—	SL0-9	Total	Grd Corres SLU jk on last line Fr in SLU Multiple	SLU Fr
SD-26030	—	—	SL0-9	Total	Grd Corres SLU jk on last line Fr in SLU Multiple	SLU Fr
Coin Supervisory SD-25736	(D) (D)	5/26 5/26	CS CS	Total Service	MB Key/Call Opr RL1 Rel	CS CS
Line Links SD-25548	HG0 Rel HG0 Rel HG1 Rel HG1 Rel	LB0 LB5 LB0 LB5	L0, L5	Horiz Grp	1. Insert 349A Plug in 0 & 5 Junctor sw MB jk on Ln Lk Fr 2. Grd SL Lead at Ln Lk Fr	Ln Lk Fr
SD-26030	—	—	L0, L5	Horiz Grp	1. Insert 349A Plug in 0 & 5 Junctor sw MB jk on Ln Lk Fr 2. Grd SL Lead at Ln Lk Fr	Ln Lk Fr
Trunk Links SD-25549	TUR TUR TUR TUR	00-09 10-19 20-29 30-39	LL0 LL5 LL0 LR5	Horiz Grp	1. Insert 349A Plug in 0 & 5 Junctor sw MB jk on Tk Lk Fr 2. Grd SL Lead at Trk Lk Fr	Trk Lk Fr

TABLE E (Cont)

NO. 5 CROSSBAR TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
SD-26032	(C) or (A) (C) or (A) (C) or (A) (C) or (A)	00-09 10-19 20-29 30-39	LL0 LL5 LR0 LR5	Horiz Grp	1. Insert 349A Plug in 0 & 5 Junctor sw MB jk on Tk Lk Fr 2. Grd SL Lead on Tk Lk Fr	Trk Lk Fr
Touch-Tone To Dial Pulse Conv ES 26505	(C) (C) (C)	56 46 56	CB CBM CBM	Total Maint Service	Plug/Call Plug Opr ON1 Rel	MTF MTF Converter
Trunks	—	—	TYP:** C, CC, CO, G, S, TV, B1*	Total	TYP** OPR: B, D, SN, ON, S1 or S2 Rel	Trunk
AMA Recorder SD-25872	UPPER (TRF)	1	TU	Service	Opr ON3 Rel	Recorder

* Normally at ground potential

** Typically

TABLE F

CROSSBAR TANDEM TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Marker SD-25361	(MISC) (MISC) (MISC) (MISC)	74 75 74 74	MB MBM MB MB	Total Maint Service Service	Plug/Call Plug Opr SPT Rel Call	Test Fr Test Fr Marker Test Fr
SD-27069	MISC(A) MISC(A) MISC(A) MISC(A)	73 74 73 73	MB MBM MB MB	Total Maint Service Service	Plug/Call Plug Opr SPT Rel Call	Test Fr Test Fr Marker Test Fr
Transverter SD-25968	(MISC) (MISC) (MISC) (MISC)	57 67 57 57	SB MB SB SB	Total Maint Service Service	Plug/Call Plug Rls TA1 Rel Call	Test Fr Test Fr TV Test Fr
Office Links SD-25033	VERT NO. 2 PRI SW	RESP HALVES	0L0-9 2R0-9 5L0-9 7R0-9	Total	1. Insert MB Plug in 0, 2, 5, & 7 pri sw MB jk 2. Grd SL Lead	Off Ln Fr
Trunk Links SD-25362	—	—	0L0-9 2R0-9 5L0-9 7R0-9	Total	1. Insert MB Plug in 0, 2, 5, & 7 pri sw MB jk 2. Grd SL lead	Trk Lk Fr
Senders MF SD-27024	(G) (G) (G)	17 27 17	SB SBM SB	Total Maint Service	Plug/Call Plug Opr ON1 Rel	Test Fr Test Fr Sender
SD-25769	(A) (B) (A)	73 56 73	SB SBM SB	Total Maint Service	Plug/Call Plug Opr ON1 Rel	Test Fr Test Fr Sender
DP SD-25999	(G) (G) (G)	17 27 17	SB SBM SB	Total Maint Service	Plug/Call Plug Opr ON1 Rel	Test Fr Test Fr Sender
SD-25478	(A) (B) (A)	36 26 36	SB SBM SB	Total Maint Service	Plug/Call Plug Opr ON1 Rel	Test Fr Test Fr Sender

TABLE F (Cont)

CROSSBAR TANDEM TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
PCI SD-25961	(AA) (AA) (AA)	18 17 18	SB SBM SB	Total Maint Service	Plug/Call Plug Opr ON1 Rel	Test Fr Test Fr Sender
RP SD-25359	(MISC) (MISC) (MISC)	95-99 50-54 95-99	SB SBM SB	Total Maint Service	Plug/Call Plug Opr ON1 Rel	Test Fr Test Fr Sender
MF SD-25978	(A) (B) (A)	73 56 73	SB SBM SB	Total Maint Service	Plug/Call Plug Opr ON1 Rel	Test Fr Test Fr Sender
3D Register SD-25534	(MISC) (MISC) (MISC)	180-189 190-199 180-189	RB RBM RB	Total Maint Service	Plug/Call Plug Opr H2 Rel	Test Fr Test Fr Register
2 Way Interoffice Trk SD-27000	(A)	32	S2	Service	Opr A Rel	Trunk
Sender Link & Controller SD-25358	—	—	S	Total	Plug	Controller
OGT to CAMA Position SD-96481	(B)	15	S	Service	Opr S. Rel	Trunk
CAMA Positions SD-95853	(B)	15	S	Total	Opr S Rel	Positions Circuit
SD-27002 With ANI	(A)	27	S	Total	Opr S Rel	Positions Circuit
W/O ANI	(B)	3	S	Total	Grd S Lead	Positions Circuit
Incoming Trks SD-25356	—	10	TB	Total	Opr D Rel	Trunk
SD-25357	(C) On Trk Fr	10	TB	Total	Opr D1 Rel	Trunk
INC Trk to CAMA Pos SD-27036	(A)	58	PB*	Total	Opr A. Rel	Trunk

TABLE F (Cont)

CROSSBAR TANDEM TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
SD-27061	(A)	58	PB*	Total	Opr T Rel	Trunk
SD-96482	(B)	23	S	Total	Opr PB Rel	Trunk
AMA Recorder SD-25872	UPPER (TRF)	1	TU	Service	Opr ON3 Rel	Recorder
INC Trk HF Pulsing SD-25909	—	9	PB*	Total	Opr T Rel	Trunk

* Normally at ground potential

TABLE G

PANEL TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Subscriber Sender SD-21193	SDR Unit SDR Unit SDR Unit	SB MB SB	SB SBM SB	Service Maint Service	Call Plug Opr SB Rel	Test Fr Test Fr Sender
SD-21194	SDR Unit SDR Unit SDR Unit	SB MB SB	SB SBM SB	Service Maint Service	Call Plug Opr SB Rel	Test Fr Test Fr Sender
Auxiliary Sender SD-96479	(A) (A) (A)	19 19 10	SB SBM SB	Total Maint Service	Plug/Call Plug Opr ON Rel	Test Fr Test Fr Sender
Subscriber Link SD-21744	(TUR)	LB	LB	Total	Grd Link sw D4 Spring	Link
SD-21460	(TUR)	LB	AU	Total	Grd Link sw D4 Spring	Link
Decoder SD-21277	(ST) Rel (ST) Rel (ST) Rel	1L 1L 1L	MB MBM MB	Service Maint Service	Call Plug Opr ST Rel	Test Fr Test Fr Decoder
Identifier SD-95810	(G) (G) (G)	46 36 46	IB IBM IB	Service Maint Service	Call Plug Opr ON2 Rel	Test Fr Test Fr Identifier
Outpulser SD-95811	(B) (W) (B)	7 9 7	OPB OPBM OPB	Service Maint Service	Call Plug Opr ON Rel	Test Fr Test Fr Outpulser
3D Translator SD-96529	(HC) (HC) (HC)	12 22 12	DTB DTBM DTB	Total Maint Service	Plug/Call Plug Opr BY Rel	Translator Translator Translator
Code Compressor SD-96527	(C) (C) (B)	44 44 37	CBM CBM CB	Total Maint Service	Plug/Call Opr TM Rel Call	CC CC CC
Subscriber Line SD-21273	(TU) Jacks	00-19	S	Total	Grd SLU Lead	IDF

TABLE G (Cont)

PANEL TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Line Finder & Dist. Sel. SD-21627	T.S. on Dist. Fr	BR	TU	Total	Grd Dist. sw S4 Spring	Line Finder
SD-21077	T.S. on Dist. Fr	13	TU	Total	Grd Dist sw S4 Spring	Line Finder
ES-21030	—	—	TU	Total	Grd Dist sw S4 Spring	Line Finder
ES-21031	—	—	TU	Total	Grd Dist sw S4 Spring	Line Finder
Coin Control SD-21631	T.S. on Dist Fr	TU	TU	Total	Grd TU Lead	CC
District Selector SD-21784	T.S. on Dist Fr	BR Lead on Seq sw	PB*	Total	Opr SL Rel	Selector
Incoming Selector SD-21115	T.S. on Inc Fr	PB	PB*	Total	Recycle Selector	Selector

* Normally at ground potential

TABLE H

SXS TUR BUSY TEST TABLE						
CIRCUIT	TERM STRIP	PCHG	USAGE LEAD	USAGE TYPE	MAKE-BUSY METHOD	MAKE-BUSY LOCATION
Line Finders SD-31530	—	9	S	Total	Grd SL Lead	Line Finder
SD-33013	—	9	S	Total	Grd SL Lead	Line Finder
Selectors SD-30200	—	9	S	Total	Grd SL Lead	Selector
SD-31745	—	9	S	Total	Grd SL Lead	Selector
Connectors SD-30228	—	9	S	Total	Grd SL Lead	Connector
Identifier SD-95810	(G) (G) (G)	46 36 46	IB IBM IB	Service Maint Service	Call Plug Opr ON 2 Rel	Test Fr Test Fr Identifier
Outpulser SD-95811	(B) (W) (B)	7 9 7	OPB OPBM OPB	Service Maint Service	Call Plug Opr ON Rel	Test Fr Test Fr Outpulser
Subscriber Line Usage T-95738-34	—	—	S	Total	Grd SLU Jk	VIDF/HIDF
AMA Sender SD-32207	(TF)	24	SB	Service	Opr ON1 Rel	Sender
Identifier SD-31957	(MISC-A) (MISC-A) (MISC-A)	38 37 38	IB IBM IB	Service Maint Service	Call Plug Opr DNT2 Rel	Test Fr Test Fr Identifier
Transverter SD-32203	MISC MISC MISC MISC	111 110 111 111	TB TBM TB TB	Total Maint Service Service	Plug/Call Plug Call Rls CH1 Rel	Test Fr Test Fr Test Fr Transverter
AMA Recorder SD-25872	Upper T.S.	1	TU	Service	Opr ON3 Rel	Recorder