

**CORD SERVICE OBSERVING CIRCUITS SD-56254-01 AND SD-56298-01
FOR NO. 1 TOLL SWITCHBOARDS WITH POSITIONS
ARRANGED FOR KEYPULSING
SIGNAL CONVERTER/ALLOTTER INTERFACE
TESTS
SERVICE EVALUATION SYSTEM NO. 1A**

1. GENERAL

1.01 This section describes a method of testing the cord service observing circuits (SOCs) SD-56254-01 and SD-56298-01 used to observe on traffic handled by No. 1 toll switchboard positions arranged for keypulsing. A signal converter/allotter (SC/A) associated with a Service Evaluation System (SES) No. 1A along with an SC/A test set is used in the performance of these tests.

1.02 Whenever this section is reissued, the reason for reissue will be listed in this paragraph.

1.03 The tests covered are:

A. Voice Circuit Transmission Loss and Noise: This test checks the net loss at 1000 Hz of the SOC and cabling facilities and provides for readjustment of the amplifiers, if required. Noise levels of the SOC and cabling facilities are also tested.

B. Out-of-Service: This test checks that power can be removed from the SOC by operations at the SC/A.

C. Operational: This test checks the normal operation of the SOC by simulating an actual call for observation. Seizure, call progress, called number digit registration, SOC time-out, and release from the SC/A are checked.

1.04 These tests require action or verification at the SOC, at the switchboard position, and

at the SC/A. A talking path must be established between these positions to implement the test procedure.

1.05 These tests should be performed during light traffic hours to avoid disruption of service observing. The approval of the traffic department (SEC administrator) must be obtained before performing these tests.

1.06 Test A, Voice Circuit Transmission Loss and Noise, may be performed independently of all other tests.

1.07 All test equipment used shall be accurately calibrated.

1.08 For further information on the SC/A and the SC/A test set, refer to Sections 252-242-101 and 252-242-102.

1.09 A letter (a, b, c, etc) added to a step number in 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.

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

SECTION 252-245-522

2. APPARATUS

TEST A (Apparatus Required at SOC Location)

- 2.01 One 21A transmission measuring set (TMS) or equivalent.
- 2.02 Relay blocking tools as required.
- 2.03 One 3P17B patching cord assembly (Fig. 1A) or equivalent.
- 2.04 One 2W24A patching cord assembly (Fig. 1B) or equivalent.
- 2.05 One patching cord (Fig. 1C) made up locally (SOCs not equipped with isolation circuit with test jack circuit).
- 2.06 One 89-type resistor with 9-dB or greater attenuation (SOCs equipped with P and/or P1 pads only).
- 2.07 One 250A dummy plug or equivalent (SOCs equipped with isolation circuit only).

TEST A (Apparatus Required at SC/A Location)

- 2.08 One 21A TMS or equivalent.
- 2.09 One patching cord (Fig. 1D) made up locally.

2.10 One 3C noise measuring set (NMS) or equivalent equipped with 497A network package.

2.11 One 2W17A patching cord assembly (Fig. 1E) or equivalent.

2.12 One W1AD patching cord assembly (Fig. 1F) or equivalent.

2.13 Two 624B tools.

TESTS B AND C

2.14 SC/A test set and associated power cord at SC/A location.

TEST C (Apparatus Required at SC/A Location)

2.15 One 1025A headset or equivalent at SC/A location.

TEST C (Apparatus Required at Switchboard Location)

2.16 Patching cord (Fig. 1G) made up locally.

2.17 One J64717 portable control test set if switchboard position has DC or DC-MF keyset.

2.18 Three 3P7A patching cord assemblies (Fig. 1H) or equivalent or three 3P12G patching cord assemblies (Fig. 1I) or equivalent.

3. PREPARATION

TESTS B AND C

STEP	ACTION	VERIFICATION
1	Inform SEC administrator that testing is to be performed and request that SC/A be placed in the maintenance state.	
2	At SC/A— Set PWR-ON/OFF switch to OFF.	ALM lamp lighted. ALM CO lamp lighted.
3	Connect SC/A test set power cord between J2 at SC/A test set and P2 at SC/A.	
4	At SC/A test set— Set NON-CORD/OFF/CORD switch to CORD.	

STEP	ACTION	VERIFICATION
5	Set COMMAND CODE thumbwheels to 000 (command hold order).	
6	At SC/A— Set TEST MODE/OFF switch to TEST MODE.	
7	Set PWR-ON/OFF switch to ON.	ALM and ALM CO lamps off. TEST lamp lighted. At test set— All SC/A STATUS lamps lighted. PROG TMG CYCLE lamp lighted.
Note: Steps 8 and 9 must be performed within 30 seconds after setting PWR-ON/OFF switch to ON.		
8	Depress TEST SET RESET pushbutton.	MESSAGE CODE indicates 104 (cold start in progress). DATA READY lamp off. All RELAY STATUS lamps off. All SC/A to SEC ERR lamps off.
9	Depress TRMT ENTRY pushbutton.	PROG TMG CYCLE lamp off. MESSAGE CODE indicates 174 (command hold acknowledgment). DATA READY lamp lighted.
10	Depress ADV DIS pushbutton.	DATA READY lamp off.
TEST C		
11	At SC/A— Connect 1025A headset to DI jack.	
12a	If SOC is provided with a remote control connector circuit— At control cabinet— Open cabinet door.	All OS lamps lighted.
13a	Set the cord and position selector switches to agree with the cord and position to be used for test. Close cabinet door.	OS lamps associated with SOC under test off.
14a	At SOC— Momentarily release ST relay.	
15b	If SOC is not provided with a remote control connector circuit— At switchboard— Remove all patching cords associated with SOC under test from all positions except position to be used for test.	

SECTION 252-245-522

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

Note: Disconnect patching cords from cord fasteners or cord sockets before removing plugs from loop connector sockets.

4. METHOD

A. Voice Circuit Transmission Loss and Noise Test

- 1 Arrange with SEC administrator to inhibit port at SC/A associated with SOC to be tested.
- 2 At SOC—
Adjust 21A TMS as follows:
FREQ MULT to X100
FREQ scale to 10
OSC OUTPUT to 0 in white range (both switches).
- 3 Block GB relay nonoperated.
- 4 Block FP1 and RP1 relays operated.

SOCs Equipped With Isolation Circuit (SD-95901-01)

- 5a If isolation circuit is *not* equipped with test jack circuit—
At isolation circuit—
Block OBS relays 0 through 4 nonoperated.
- 6a Using patching cord (Fig. 1C)—
Connect OSC OUT 600 Ω jacks of 21A TMS to pins 58 and 48 of terminal strip A.
- 7b If isolation circuit is equipped with test jack circuit—
At isolation circuit—
Using 3P17B patching cord assembly—
Connect OSC OUT 600 Ω jacks of 21A TMS to FC jack.
- 8 Using 2W24A patching cord assembly—
Connect DET IN 600 Ω jacks of 21A TMS to terminals 4 and 8 of F amplifier.
- 9 At SC/A—
Using patching cord (Fig. 1D) and 624B tools—
Connect DET IN 600 Ω jacks of 21A TMS to terminal strip pins (Table A, T/R) of port associated with SOC under test.

21A TMS indicates $+8.5 \pm 1.5$ dB. (See note.)

Note: If meter indicates other than specified, adjust F amplifier.

At SC/A—
21A TMS indicates -10.0 ± 1.5 dB. (See note.)

Note: If meter indicates other than specified, select proper value of P pad at SOC.

STEP	ACTION	VERIFICATION
10a	At isolation circuit— Disconnect 21A TMS from pins 58 and 48 and connect to pins 38 and 28 of terminal strip A.	
11b	At isolation circuit— Disconnect 21A TMS from FC jack and connect to RC jack.	
12	Disconnect 21A TMS from terminals 4 and 8 of F amplifier and connect to terminals 4 and 8 of R amplifier.	21A TMS indicates $+8.5 \pm 1.5$ dB. (See note.) Note: If meter indicates other than specified, adjust R amplifier.
13	At SC/A— Disconnect 21A TMS connection made in Step 9 and connect to terminal strip pins of T2 and R2 associated with SOC under test (Table A).	21A TMS indicates -10.0 ± 1.5 dB. (See note.) Note: If meter indicates other than specified, select proper value of P1 pad at SOC.
14a	At isolation circuit— Disconnect patching cord connected to pins 38 and 28 of terminal strip A from 21A TMS. (Do not disconnect patching cord from terminal strip pins.)	
15b	At isolation circuit— Disconnect 21A TMS from RC jack and insert 250A dummy plug.	
16	At SC/A— Disconnect 21A TMS from 624B tools (leave 624B tools connected).	
17	Using 2W17A patching cord assembly— Connect 3C NMS to 624B tools.	
18	Using W1AD patching cord assembly— Connect GRD post of 3C NMS to electrical ground.	
19	Condition 3C NMS as follows: C-MESSAGE WTG DAMP/NORM to NORM FUNCTION to NM 600/900	
20	At 3C NMS— Set DBRN switch for a meter indication between +2 and +9.	Sum of meter indication and DBRN switch setting is less than 34.
21a	At isolation circuit— Disconnect patching cord from pins 38 and 28	

SECTION 252-245-522

STEP	ACTION	VERIFICATION
	and connect to pins 58 and 48 of terminal strip A.	
22b	At isolation circuit— Remove 250A dummy plug from RC jack and insert in FC jack.	
23	At SC/A— Disconnect 3C NMS from T2 and R2 and connect to terminal strip pins of T and R associated with SOC under test (Table A).	
24	At 3C NMS— Set DBRN switch for a meter indication between +2 and +9.	Sum of meter indication and DBRN switch setting is less than 34.
25	At SC/A and SOC— Disconnect all test equipment and unblock all relays.	
26	Inform SEC administrator that inhibited port is available for service.	

**SOCs Equipped With A and B Amplifiers
(Isolation Circuit Not Provided)**

5	At SOC— Using patching cord (Fig. 1C)— Connect OSC OUT 600 Ω jacks of 21A TMS to pins 1 and 2 of terminal strip A on any connector unit.	
6	Remove A amplifier.	
7	Using 2W24A patching cord assembly— Connect DET IN 600 Ω jacks of 21A TMS to FT tube terminal board pins 2 and 8. Warning: High voltage present on tube socket.	21A TMS indicates -5.0 ± 1.5 dB. (See note.) Note: If meter indicates other than specified, replace FT tube and repeat reading after allowing a 5-minute warm-up.
8	Replace A amplifier. Note: If amplifier is a tube type, allow a 5-minute warm-up.	
9	At SC/A— Using patching cord assembly (Fig. 1D) and 624B tools— Connect DET IN 600 Ω jacks of 21A TMS to terminal strip pins (Table A, T/R) of port associated with SOC under test.	21A TMS indicates -10.0 ± 1.5 dB. (See note.) Note: If meter indicates other than specified, adjust the A amplifier at SOC.

STEP	ACTION	VERIFICATION
10	At SOC— Disconnect 21A TMS from pins 1 and 2 of terminal strip B and connect to pins 4 and 5.	
11	Remove B amplifier.	
12	Disconnect 21A TMS from FT tube terminal board pins 2 and 8 and connect to RT tube terminal board pins 2 and 8. Warning: High voltage present on tube socket.	21A TMS indicates -5.0 ± 1.5 dB. (See note.) Note: If meter indicates other than specified, replace RT tube and repeat reading after allowing a 5-minute warm-up.
13	Replace B amplifier. Note: If amplifier is a tube type, allow a 5-minute warm-up.	
14	At SC/A— Disconnect 21A TMS connection made in Step 9 and connect to terminal strip pins of T2 and R2 associated with SOC under test (Table A).	21A TMS indicates -10.0 ± 1.5 dB. (See note.) Note: If meter indicates other than specified, adjust the B amplifier at SOC.
15	At SOC— Disconnect patching cord from OSC OUT 600 Ω jacks at 21A TMS. (Do not disconnect patching cord from terminal strip.)	
16	At SC/A— Disconnect 21A TMS from 624B tools. (Leave 624B tools connected.)	
17	Using 2W17A patching cord assembly— Connect 3C NMS to 624B tools.	
18	Using W1AD patching cord assembly— Connect GRD post of 3C NMS to electrical ground.	
19	Condition 3C NMS as follows: C-MESSAGE WTG DAMP/NORM to NORM FUNCTION to NM 600/900	
20	At 3C NMS— Set DBRN switch for a meter indication between +2 and +9.	Sum of meter indication and DBRN switch setting is less than 34.
21	At SOC— Disconnect patching cord from pins 4 and 5	

SECTION 252-245-522

STEP	ACTION	VERIFICATION
	of terminal strip B and connect to pins 1 and 2.	
22	At SC/A— Disconnect 3C NMS from T2 and R2 and connect to terminal strip pins of T and R associated with SOC under test (Table A).	
23	At 3C NMS— Set DBRN switch for a meter indication between +2 and +9.	Sum of meter indication and DBRN switch setting is less than 34.
24	At SC/A and SOC— Disconnect all test equipment and unblock all relays.	
25	Inform SEC administrator that inhibited port is available for service.	

SOCs Equipped With P and/or P1 Pads (Isolation Circuit Not Provided)

5	At SOC— Using patching cord (Fig. 1C)— Connect OSC OUT 600 Ω jacks of 21A TMS to pins 1 and 2 of terminal strip B on any connector unit.	
6	Replace P pad (89-type resistor) with a 9-dB or greater pad.	
7	Using 2W24A patching cord assembly— Connect DET IN 600 Ω jacks of 21A TMS to FT tube terminal board pins 2 and 8.	21A TMS indicates -7.5 ± 2.0 dB. (See note.) Note: If meter indicates other than specified, replace FT tube and repeat reading after allowing a 5-minute warm-up.
	Warning: High voltage present on tube socket.	
8	Replace original P pad.	
9	At SC/A— Using patching cord assembly (Fig. 1D) and 624B tools— Connect DET IN 600 Ω jacks of 21A TMS to terminal strip pins (Table A, T/R) of port associated with SOC under test.	21A TMS indicates -10.0 ± 2.0 dB. (See note.) Note: If meter indicates other than specified, select correct value of P pad at SOC.
10	At SOC— Disconnect 21A TMS from pins 1 and 2 of terminal strip B and connect to pins 4 and 5.	

STEP	ACTION	VERIFICATION
11a	If SOC is equipped with P1 pad— Replace P1 pad (89-type resistor) with a 9-dB or greater pad.	
12a	Disconnect 21A TMS from FT tube terminal board pins 2 and 8 and connect to RT tube terminal board pins 2 and 8. Warning: High voltage present on tube socket.	21A TMS indicates -7.5 ± 2.0 dB. (See note.) Note: If meter indicates other than specified, replace RT tube and repeat reading after allowing a 5-minute warm-up.
13a	Replace original P1 pad.	
14b	If SOC is <i>not</i> equipped with P1 pad— At distributing frame— Remove heat coils for T2 and R2 leads.	
15b	At SOC— Disconnect 21A TMS from FT tube terminal board pins 2 and 8 and connect to terminals 2 and 5 of B repeat coil.	21A TMS indicates -5.0 ± 1.5 dB. (See note.) Note: If meter indicates other than specified, replace RT tube and repeat reading after allowing a 5-minute warm-up.
16b	At distributing frame— Replace heat coils for T2 and R2 leads.	
17	At SC/A— Disconnect 21A TMS connection made in Step 9 and connect to terminal strip pins of T2 and R2 associated with SOC under test (Table A).	21A TMS indicates -10.0 ± 1.5 dB. (See note.) Note: If meter indicates other than specified, select correct value of P1 pad at SOC, if provided.
18	At SOC— Disconnect patching cord from OSC OUT 600 Ω jacks at 21A TMS. (Do not disconnect patching cord from terminal strip.)	
19	At SC/A— Disconnect 21A TMS from 624B tools. (Leave 624B tools connected.)	
20	Using 2W17A patching cord assembly— Connect 3C NMS to 624B tools.	
21	Using W1AD patching cord assembly— Connect GRD post of 3C NMS to electrical ground.	
22	Condition 3C NMS as follows: C-MESSAGE WTG DAMP/NORM to NORM FUNCTION to NM 600/900	

SECTION 252-245-522

STEP	ACTION	VERIFICATION
23	At 3C NMS— Set DBRN switch for a meter indication between +2 and +9.	Sum of meter indication and DBRN switch setting is less than 34.
24	At SOC— Disconnect patching cord from pins 4 and 5 of terminal strip B and connect to pins 1 and 2.	
25	At SC/A— Disconnect 3C NMS from T2 and R2 and connect to terminal strip pins of T and R associated with SOC under test (Table A).	
26	At 3C NMS— Set DBRN switch for a meter indication between +2 and +9.	Sum of meter indication and DBRN switch setting is less than 34.
27	At SC/A and SOC— Disconnect all test equipment and unblock all relays.	
28	Inform SEC administrator that inhibited port is available for service.	

B. Out-of-Service Test

11	At SC/A test set— Set COMMAND CODE to 004 (turndown order) and depress TRMT ENTRY pushbutton.	At SOC— ST relay released.
12	At SC/A test set— Set COMMAND CODE to 001 (cold start order) and depress TRMT ENTRY pushbutton.	At SOC— ST relay operated.
13a	If no other tests are to be performed— Go to Part 5 and perform Steps 3 through 7.	

C. Operational Test

16	At SC/A test set— Set COMMAND CODE to 013 (inhibit all ports) and depress TRMT ENTRY pushbutton.	
17	Set COMMAND CODE per Table B to activate port associated with SOC under test only and depress TRMT ENTRY pushbutton.	
18	Depress TEST SET RESET pushbutton.	DATA READY lamp off.

STEP	ACTION	VERIFICATION
19	Set COMMAND CODE to 002 (hot start order) and depress TRMT ENTRY pushbutton.	
20	Set COMMAND CODE to 016. (Do not depress TRMT ENTRY pushbutton.)	
21	At switchboard position used for test— Using patching cord (Fig. 1G)— Connect REC jack of continuity test circuit (A plug) to B/G jack of low-shunt testing circuit (B plug).	
22	Connect rear cord to B TRK jack of continuity test circuit.	At SC/A test set— SEIZURE ON PORT indicates port associated with SOC under test (00-15). MESSAGE CODE indicates per Table C for port associated with SOC under test. DATA READY lamp lighted.
23	At SC/A test set— Depress ADV DIS pushbutton and record MESSAGE CODE display. Repeat until DATA READY lamp is off.	Message codes recorded are as follows: 055 (HBA relay operates) 135 (RC relay operates) If SOC is equipped with DC signal monitoring, MESSAGE CODE displays 155 (RM relay operates). 075 (FC relay operates) and 115 (FM relay operates) may be displayed.
24	At switchboard position used for test— Operate cord TALK key and talk from switchboard.	At headset— Adequate talk transmission heard.
25	Remove rear cord from B TRK jack.	At SC/A test set— Record MESSAGE CODE display. DATA READY lamp lighted.
26	At SC/A test set— Depress ADV DIS pushbutton and record MESSAGE CODE display. Repeat until DATA READY lamp is off.	Message code recorded is as follows: 131 (RC relay releases) If SOC is equipped with DC signal monitoring, MESSAGE CODE displays 151 (RM relay releases). 071 (FC relay releases) and 111 (FM relay releases) are displayed if 075 (FC relay operates) and 115 (FM relay operates) were displayed in Step 23.
27	Depress TRMT ENTRY pushbutton.	MESSAGE CODE displays 034 (release verification). DATA READY lamp lighted.
28	Depress ADV DIS pushbutton.	DATA READY lamp off.
29	At switchboard position used for test— Connect front cord to B TRK jack of continuity	At SC/A test set— SEIZURE ON PORT indicates port associated

SECTION 252-245-522

STEP	ACTION	VERIFICATION
	test circuit.	with SOC under test (00-15). MESSAGE CODE indicates per Table C for port associated with SOC under test. DATA READY lamp lighted.
30	At SC/A test set— Depress ADV DIS pushbutton and record MESSAGE CODE display. Repeat until DATA READY lamp is off.	Message codes recorded are as follows: 055 (HBA relay operates) 075 (FC relay operates) If SOC is equipped with DC signal monitoring, MESSAGE CODE displays 115 (FM relay operates). 135 (RC relay operates) and 155 (RM relay operates) may be displayed.
31	At switchboard position used for test— Operate cord TALK key and talk from switchboard.	At headset at SC/A— Adequate talk transmission heard.
32	Remove front cord from B TRK jack.	At SC/A test set— Record MESSAGE CODE display. DATA READY lamp lighted.
33	At SC/A test set— Depress ADV DIS pushbutton and record MESSAGE CODE display. Repeat until DATA READY lamp is off.	Message code recorded is as follows: 071 (FC relay releases) If SOC is equipped with DC signal monitoring, MESSAGE CODE displays 071. 131 (RC relay releases) and 151 (RM relay releases) are displayed if 135 (RC relay operates) and 155 (RM relay operates) were displayed in Step 30.
34	Depress TRMT ENTRY pushbutton.	MESSAGE CODE displays 034 (release verification). DATA READY lamp lighted.
35	Depress ADV DIS pushbutton.	DATA READY lamp off.
36	Set COMMAND CODE to 013 (inhibit all ports) and depress TRMT ENTRY pushbutton.	
37	At switchboard position used for test— Connect front cord to B TRK jack of continuity test circuit.	At SOC— Loop connector A relay associated with position operates and then releases.
38	Remove front cord from B TRK jack.	
39	Remove patching cord from REC and B/G jacks.	
40c	If testing from a switchboard position with a DC or DC-MF keyset— Patch portable control set jacks 1, 2, and 3	

STEP	ACTION	VERIFICATION
	to the keyset test circuit jacks 1, 2, and 3, respectively.	
41c	Operate control key in portable control set to LD position.	
42c	Connect front cord to D jack of keyset test circuit in switchboard multiple.	At SC/A test set— SEIZURE ON PORT indicates port associated with SOC under test (00-15). MESSAGE CODE indicates per Table C for port associated with SOC under test. DATA READY lamp lighted.
43d	If testing from a switchboard position with an MF keyset— Connect front cord to P jack of low-shunt testing circuit in switchboard multiple.	At SC/A test set— SEIZURE ON PORT indicates port associated with SOC under test (00-15). MESSAGE CODE indicates per Table C for port associated with SOC under test. DATA READY lamp lighted.
44	At SC/A test set— Depress ADV DIS pushbutton and record MESSAGE CODE display. Repeat until DATA READY lamp is off.	Message codes recorded are as follows: 055 (HBA relay operates) 075 (FC relay operates)
45	At switchboard position used for test— Operate TALK key.	
46	Depress front keyset attached key.	At SC/A test set— MESSAGE CODE displays 065 (KA relay operates). DATA READY lamp lighted.
47	At SC/A test set— Depress ADV DIS pushbutton.	MESSAGE CODE displays 126 (KP). DATA READY lamp lighted.
48	At switchboard position used for test— Depress keyset digits 0 through 9, one at a time.	
49	At SC/A test set— Depress ADV DIS pushbutton and record MESSAGE CODE display. Repeat until DATA READY lamp is off.	MESSAGE CODE indicates per Table D.
50	At switchboard position used for test— Depress ST key.	At SC/A test set— MESSAGE CODE displays 136 (ST). DATA READY lamp lighted.
51	Disconnect front cord.	

SECTION 252-245-522

STEP	ACTION	VERIFICATION
52	At SC/A test set— Depress ADV DIS pushbutton and record MESSAGE CODE display. Repeat until DATA READY lamp is off.	Message code recorded is as follows: 071 (FC relay releases)
53	Set COMMAND CODE to 016 (release the call) and depress TRMT ENTRY pushbutton.	MESSAGE CODE displays 034 (release verification). DATA READY lamp lighted.
54	Depress ADV DIS pushbutton.	DATA READY lamp off.
55c	At switchboard position used for test— Disconnect portable control set.	
56e	If SOC is to be tested using other cords or positions— Repeat Steps 13a through 55c.	
5. RESTORE SC/A TO SERVICE		
1	At SC/A— Remove headset from DI jack.	
2	At switchboard or remote control connector cabinet— Restore all SOC patching cords or switches.	
3	At SC/A— Set PWR-ON/OFF switch to OFF.	ALM lamp lighted. ALM CO lamp lighted.
4	Disconnect SC/A test set from SC/A.	
5	Set PWR-ON/OFF switch to ON.	ALM and ALM CO lamps off. TEST lamp lighted. Lamp on JW433 circuit pack lighted momentarily.
6	Set TEST MODE/OFF switch to OFF.	TEST lamp off.
7	Inform SEC administrator that SC/A is available for service.	

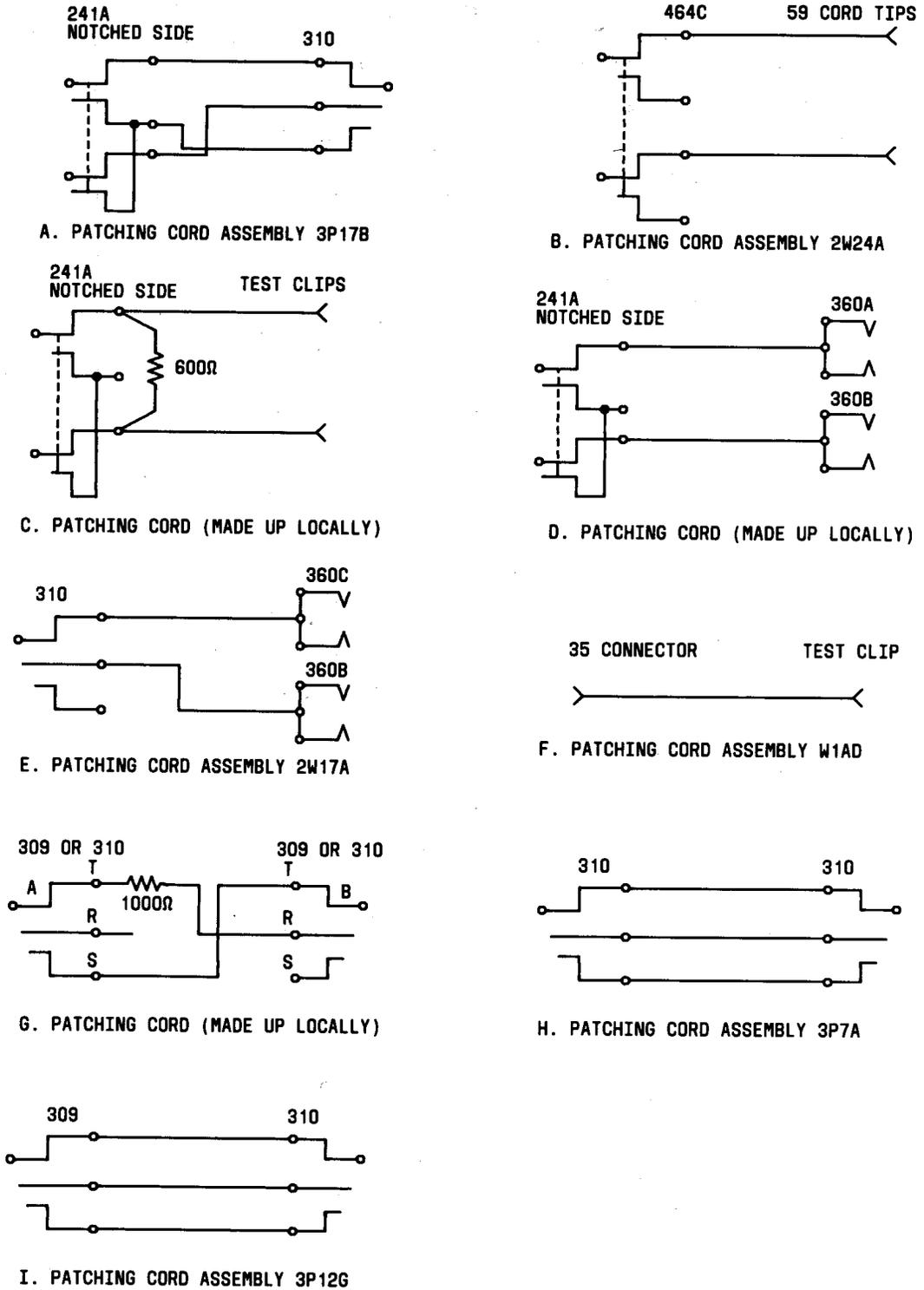


Fig. 1—Patching Cords

TABLE A

PORT NUMBER	TERMINAL STRIP (NOTE)	PIN NUMBERS			
		T	R	T2	R2
00	A	48	38	28	18
01	A	27	17	46	36
02	A	45	35	25	15
03	A	24	14	43	33
04	A	42	32	22	12
05	B	48	38	28	18
06	B	27	17	46	36
07	B	45	35	25	15
08	B	24	14	43	33
09	B	42	32	22	12
10	C	48	38	28	18
11	C	27	17	46	36
12	C	45	35	25	15
13	C	24	14	43	33
14	C	42	32	22	12
15	D	48	38	28	18

Note: Terminal strips located at upper right front of SC/A.

TABLE B

PORT	COMMAND CODE SETTING
00	020
01	021
02	022
03	023
04	024
05	025
06	026
07	027
08	030
09	031
10	032
11	033
12	034
13	035
14	036
15	037

TABLE C

MESSAGE CODE DISPLAY	SEIZURE ON PORT NO.
000	00
010	01
020	02
030	03
040	04
050	05
060	06
070	07
100	08
110	09
120	10
130	11
140	12
150	13
160	14
170	15

TABLE D

MESSAGE CODE DISPLAY	MF DIGIT
006	0
016	1
026	2
036	3
046	4
056	5
066	6
076	7
106	8
116	9