SWITCHING SYSTEMS MANAGEMENT
NO. 4 TOLL CROSSBAR
ASSIGNMENT PRACTICES
SENDER LINK FRAMES

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Figures

1. GENERAL

1.01 The No. 4A/4M switching sytems are furnished with Sender Link Frames (SLFs) equipped with incoming senders for conventional signaling requirements. These requirements would include DP, MF, OVS, and CAMA senders. In addition, the 4A/4M with an Electronic Translator System (ETS) may have SLFs equipped with sender-outpulsers (modified MF senders) to serve Common Channel Interoffice Signaling (CCIS) requirements. The machine administrator must make assignments for

these SLFs to provide a balanced incoming traffic load from the incoming trunks to the senders or sender-outpulsers.

1.02 This section is a general revision of the Section 13c(6) issued in October 1974. Change arrows enclose the figure titles of new and revised illustrations.

1.03 The following parts of this practice will describe basic SLF functions and ***hardware assignments*** for both CCIS and non-CCIS trunk relays which terminate on the SLF. Hardware assignments will cover the physical specifications for establishing and maintaining an in-service switching system.

1.04 In addition to the hardware SLF assignments explained in this section, the machine administrator must perform ***software assignments*** for the 4A-ETS to program the memory of the electronic translator. These requirements are detailed in the 4A-ETS Translation Guide.

2. SENDER LINK FRAME DESCRIPTION

2.01 The SLF will be equipped with incoming trunk relays cabled to the horizontals of the primary switches and senders or sender-outpulsers cabled to the horizontals of the secondary switches. The verticals of the primary and secondary switches are cabled in a predetermined pattern which allows the forming of links so that any of the incoming trunks will have access to any of the senders or sender-outpulsers.

2.02 Prior to the introduction of CCIS, the SLF terminated only non-CCIS trunk relays which were linked to senders to serve incoming calls (see Fig. 1-A). With the implementation of CCIS, the 4A-ETS requires additional new equipment and many modifications to existing equipment. MF intertoll trunks may be modified to process CCIS traffic instead of purchasing new CCIS trunks; a supporting modificaton of all MF senders in the sender group to serve as the sender-outpulsers is then required. A sender-outpulser has the capability to serve an incoming call utilizing a CCIS or non-CCIS trunk relay. An SLF which terminates only CCIS trunk relays will be served by the sender-outpulser (see Fig. 1-B). An SLF which terminates both CCIS and non-CCIS trunk relays will also be served by a sender-outpulser (see Fig. 1-C). An SLF will contain either all senders or sender-outpulsers, dependent upon the specified trunk relay terminations.

2.03 Due to the algorithm for assigning trunk-related ETS memory requirements, the modified CCIS trunk relays are restricted to blocks of ten trunk relay terminations assigned to the same level of all subgroups on an SLF, or exceptionally, all ten levels within the same subgroup. The ten CCIS terminations may be a mixture of one-way incoming and 2-way trunks and may include a Sender Attachment Delay Recorder (SADR) termination.

2.04 Although there may be three types of SLF configurations, the principles used for the assignments for sender-outpulsers and senders (CCIS and non-CCIS) will be similar. Therefore, the name ***sender*** will be used in the remaining portions of this section as a descriptive term for both senders and sender-outpulsers unless there is a distinct difference of application between them.

2.05 Each SLF consists of two connectors to access the SLF and sixteen 100-crosspoint 6-wire switches (see Fig. 2). The primary switches can terminate a maximum of 100 trunk relays. The secondary switches contain 40 sender appearances.

2.06 A standard 100-crosspoint switch has the six contacts at each vertical location strapped to the adjacent verticals (see Fig. 3-A). These six wires are identified as banjo strings because they run parallel across the switch. To terminate one hundred 12-lead trunks on eight (four pairs) 100-crosspoint switches, the banjo wiring in the rear of each primary switch must be cut at every second vertical (see Fig. 3-B). This, in effect, creates 200 horizontals (50 per pair of switches). Having created 200 horizontals among the four pairs of primary switches, this gives the ability to terminate 100 trunks which require two horizontals per trunk, one horizontal on an A switch and one on the B switch. As shown in Figure 4, the four pairs of primary switches are subgrouped at each four verticals. Switches 0A, OB, 1A, and 1B have subgroups 0 through 4, and switches 2A, 2B, 3A, and 3B have subgroups 5 through 9. These ten subgroups each have ten horizontals which provide the 100-trunk capacity.

2.07 An incoming trunk has 12 leads that must be connected through the SLF switches to attach a sender (see Fig. 4). Twelve leads from

the trunk are cabled to horizontals of a pair of primary switches. Consider a trunk cabled to subgroup 0 on switches 0A and 0B. To connect this trunk to a sender, a combination of verticals in the primary and secondary switches must be operated. The combination of verticals selected to complete the connection to a sender will depend on the availability of an idle sender in one of the four subgroups of ten senders. By the operation of verticals 0 and 0' on primary switch 0B and verticals in secondary switches 0B and 0'B, a path or link is established to connect an incoming trunk to one of ten senders cabled to secondary switches 0B and 0'B. By having this incoming trunk appear on both primary switches OA and OB, it can be seen that a corresponding operation of two of four verticals in either switch OA or OB will allow the trunk to be connected to any of the four groups of ten senders.

3. SENDER LINK FRAME OPERATION

3.01 The SLFs will be installed in sender groups by types (MF, DP, DP/MF, CC/MF, OVS, and CAMA). Most sender groups will contain up to 16 SLFs. Each SLF may terminate a maximum of 100 trunk relays, including an SADR termination. These trunk relays may be linked to a maximum of 40 senders that are multipled to all other SLFs in the sender group. A sender group modified with all three phases of controller speedup may have a maximum of 18 SLFs.

3.02 Each SLF can access any of the 2, 3 or 4 link controllers serving the sender group (see Fig. 5). The link controllers and SLFs have associated connectors to provide multiple access to all components. The link controller will serve several functions, one of which is to establish the linkage in the SLF of the incoming trunk relay to a sender.

3.03 Figure 6 shows the various possible configurations of a No. 4XB switching system to serve the following incoming traffic:

- MF Overseas circuits or switchboard
- CC Toll offices
- MF Toll offices, switchboard or Traffic Service Position System (TSPS)
- DP Toll Office or switchboard Non-CAMA
- DP Local office CAMA
- MF Local office CAMA

4. ASSIGNMENT CONSIDERATIONS

4.01 The machine administrator should review the traffic order thoroughly to insure the proper quantities and spread of equipment being installed. In many locations the traffic equipment engineer distributes a preliminary copy of the pending traffic orders for this purpose. Early communication between the traffic engineer and the machine administrator will in most cases insure adequate provision and arrangement of equipment. This will reduce equipment rearrangements and provide for orderly assignments.

4.02 The following items should be considered in the traffic order review of SLFs:

(a) A good spread of relays by type across all SLFs and sender groups.

(b) The provision of SADR appearances in all SLFs.

(c) Intertoll trunks equipped for service observing. (These are usually 10% of the intertoll trunks or up to 800 per machine. CCIS trunks do not have service observing capabilities at this time.)

(d) SLF numbering and quantity per sender group or pot.

4.03 As mentioned in 3.01, an SLF can terminate up to 100 incoming trunk relays of the same type (MF, DP, DP/MF, CC/MF, OVS, and CAMA); however, a test lead from the SADR is cabled to one horizontal of the primary switches of each SLF so that the actual trunk terminations of each SLF is 99. The test lead provides the SADR access to the SLF to measure if any delay is experienced in attaching a sender to an incoming trunk. The SLFs equipped with a sender-outpulser will also have a software measurement to further examine its usage.

4.04 When assigning a new office or preparing an addition to an existing office, consideration must be given to each type of incoming traffic—DP, MF, CC, OVS, or CAMA. Lists or cards should be prepared by the type of traffic. The lists should include one-way incoming, 2-way, and

miscellaneous groups that require SLF terminations. Opposite each group, show the quantity of trunks that will be in each group. The next step will be weighting of the trunks to be assigned.

4.05 The distribution of trunk appearances on an SLF to a particular trunk group will be determined by the amount of incoming traffic or usage a given trunk will carry. A new office may be assigned by using a theoretical balance procedure which classifies trunks to a Light (L), Medium (M), or Heavy (H) weighting. Proper trunk selection will result in an even distribution of L-, M-, and H-weighted trunks across SLFs and switches.

4.06 Although trunk weighting in SLFs is not as critical as that of incoming trunk link frames, it does warrant consideration. Each subgroup in an SLF terminates ten trunk relays. These ten trunk relays have four links to connect to one of forty senders, and these links will have an occupancy duration equal to the sender holding time. The spreading of L-, M-, and H-weighted trunk relays across all switches in the SLF will insure adequate balance. In applying weighting to the various types of incoming trunk groups, Tables A, B, C, and D may be used:

TABLE A

INTERTOLL TRUNKS

		LIGHT	MEDIUM	HEAVY
HU	1-way	None	None	All
F	1-way	None	1/4	3/4
HU	2-way	1/2	None	1/2
F	2-way	1/4	1/2	1/4

4.07 Toll connecting and intertoll trunk groups from various other types of offices are difficult to categorize using the L, M, and H breakdown of weighting. For trunk groups to Electronic Switching System (ESS) locations, the machine administrator should verify the machine selection before making weighting. Step-by-Step (SXS) offices have a predetermined selection of the trunks, but it is impractical for the administrator to research which of the many patterns a given SXS office is using. To allow for this, use Table B.

TABLE B

TOLL CONNECTING TRUNKS

		LIGHT	MEDIUM	HEAVY
HU	1-way	None	None	All
FINAL 1-WAY GROUP SIZE				
1—5		All	None	None
6—31		None	All	None
32 or more		None	None	All

TABLE C

INCOMING SWITCHBOARDS

	LIGHT	MEDIUM	HEAVY
TSPS	Same as Toll Connecting		

TABLE D

CORD BOARDS
(With Idle Line Indicating Chain Relays in Groups of 5)

GROUP SIZE	LIGHT	MEDIUM	HEAVY
10	2	2	1
20	1	3	1
20—45	None	3	2
45—110	None	2	3
110—200	None	1	4
over 200	None	None	5

4.08 This arrangement of trunk groups to the SLFs should be made in a manner to insure that each group will be assigned an equal portion of its trunks to SLFs in each of the equipped sender groups. A work sheet (Fig. 7) may be used to layout each trunk group to be assigned to the SLFs by the type of relay equipment. From the Western Electric drawings, fill in the SLF

numbers that are cabled with a particular relay in each sender group. The ideal situation would be one that has each relay cabled to each SLF, but this cannot always be done. Figure 7a shows a typical example of this form. Local modification of this form may be required to fit a particular office configuration.

4.09 The sweep assignment method for distributing L-, M-, and H-loaded trunks across all possible SLFs and switches is recommended. If the work sheets shown in Figure 7a were used, an adequate spread across the SLFs and equipped sender groups would have been made. Care should be taken to insure that first choice trunks (as selected from the distant end) are not bunched in any particular SLF—especially not in one switch within an SLF. Consideration should also be given to trunk group busy hours. While using the sweep method, be sure to distribute AM and PM busy hour groups equally across sender groups and frames.

4.10 When assigning trunks, using the form shown in Figure 8, start with a predetermined location and continue the assignments in a rotation—eg, subgroup ***0,*** horizontal ***0*** (S-H/00); then S-H/10, S-H/20, etc. This pattern can then be followed until an equal number of L, M, and H trunks are assigned by subgroup to all switches within each Sender Link Frame (SLF). Consecutive linear sweep assignments will not always be possible, as you may not find the desired relay cabled to a particular subgroup and horizontal.

4.11 When selecting trunk relays to establish a trunk group, discretion should be taken to insure adequate service protection. The trunk relays will be cabled to different battery supplies (eg, ***A*** and ***B***), as indicated on office cable drawings. The alternate selection of trunk relays in different battery supplies will diversify the trunk group to prevent the loss of an entire trunk group due to the loss of one battery supply.

4.12 When assigning incoming intertoll trunk groups to the SLF, care should be taken to insure that first-choice trunks as selected from the distant end are given relays that are cabled for Service Observing (SO). Normally the SO equipped relays will be assigned to horizontal 4 of subgroups 0-9. The traffic order or Western Electric drawings should be consulted and designated in the SO column on the SLF assignment record. Division H, Section 13c(7) contains intructions for the assignment of trunks for service observing.

4.13 The observations taken in No. 4 offices by the SO personnel are usually taken on intertoll groups. These observations are used to measure the quality of service on toll completing traffic. They can also be used to determine the quality of service between toll switchers. No. 4 offices serving CAMA may take outgoing observations.

4.14 In offices equipped with a Peripheral Bus Computer (PBC), an additional assignment consideration is required. The PBC has the ability to measure incoming usage on a total of 249 CCIS or non-CCIS trunk groups. The following information indicates the different requirements of the two types of trunk assignments:

CCIS Trunk Groups

(a) All one-way incoming trunks may have usage measured via software, if required.

(b) Incoming usage for 2-way trunks may be measured only on trunks operating as a one-way incoming circuit.

Non-CCIS Trunk Groups

(a) Trunks must be cabled to the Traffic Usage Interface (TUI) or Supplemental TUI (STUI) frames to have incoming usage measuring capabilities. A maximum of 6912 one-way or 2-way trunks may be terminated on the TUI and the STUI.

(b) Incoming usage may be measured on trunks operating as either one-way or 2-way circuits.

4.15 When assigning an incoming trunk group that requires incoming usage, the aforementioned guidelines must be applied. Information for non-CCIS trunk relays that terminate on the TUI/STUI will be contained in the traffic order and/or the Western Electric drawings. As the assignments for incoming usage are completed, appropriate entries should be made on the SLF assignment record.

4.16 The 2-way trunk relays may be temporarily used as a one-way incoming relay or a one-way outgoing relay with the corresponding incoming or outgoing trunk assignments completed. However, a 2-way trunk should be used as a

one-way outgoing relay only on a limited basis, because this application will negate the future use of the specific SLF location associated with that trunk relay. When appropriate one-way trunk relays are available, the trunk can be moved to the correct equipment.

5. SENDER LINK FRAME ASSIGNMENT RECORD

5.01 After completing the trunk group layout described in Part 4, the SLF assignment record (Fig. 8) can be completed. This form has entry lines for each subgroup and horizontal location on a given SLF. Possible entries are listed below:

FORM HEADINGS	COLUMN ENTRIES
FRAME NO.	Actual number of SLF — 00, 107, etc.
TYPE	Type of SLF — MF, DP, DP/MF, CC/MF, OVS, CAMA.
POT	Sender group or pot this frame is in.
S-H	Subgroup and horizontal in SLF.
RELAY CKT:	
TYPE	Relay type — 21P, 11H, 2C, etc.
BAY	Bay number from Western Electric drawings
NO.	Relay number from Western Electric drawings.
TRUNK GROUP INFORMATION:	
GROUP NAME	Common Language Location Identification (CLLI) name of the trunk group.
NO.	Trunk number — 101, 102, etc.
TYPE	Trunk group use — F, HU, FG, TSPS, etc.
W	Trunk weighting — L, M, H.
SO	Mark this column if this relay is equipped for service observing, or post the appropriate SO jack number.
TUI	Enter the PBC traffic usage interface group and terminal number if this relay is cabled for scoring incoming usage (CCS).
TRUNK DISTRIBUTION CENTER (TDC) (for offices so equipped):	See Division H, Section 13c(8) for assignments to TDC.
BAY PNL JK	Enter the Intertoll TDC (ITDC) bay, panel, and jack number to which this relay is cabled. Obtain this information from the Western Electric drawings.

5.02 Below each grouping of 10 subgroups and horizontals, and at the bottom of the form, there are weighting columns to record the number of L-, M-, and H-weighted trunks in each subgroup and in the total frame.

5.03 When the SLF assignments have been completed on the SLF assignment record, they can be copied onto the trunk relay assigment record (Fig. 9 or 10). Then the remaining trunk relay assignments may be completed.

6. MAINTAINING SENDER LINK FRAME ASSIGNMENTS AND RECORDS

6.01 When a machine is in service, actual usage data may be available to show individual SLF usage by subgroup. Records of this usage should be maintained and used for subsequent assignments to obtain optimum balance. The PBC data acquisition system does not measure SLF usage by subgroup. Therefore, an in-service machine should maintain the individual trunk weighting after in-service measurements have been obtained on trunk groups to determine if the theoretical weighting on trunk groups is being maintained.

6.02 When major additions to an existing No. 4 are being assigned, special attention must be given to the traffic order to insure that new

groups, relay types, or new classes of service are not bunched in only the new SLF and the sender groups provided on the addition.

> ***Example:*** A No. 4 addition provides 1000 incoming TSPS trunks. The machine now serves no TSPS. ITAS relays are provided for this new service and are being cabled to new SLFs in new sender groups. Some working trunks using ITAS relays will probably have to be moved from existing frames to the new frames to maintain an adequate spread of the new TSPS groups, as well as for service protection. By having the TSPS trunks, as well as all other types, assigned in more than one sender group, loss or severe congestion in any group will not degrade service for an entire traffic type.

6.03 No. 4 offices that are ETS or ETS-PBC equipped also require the SLF assignments to be entered on the appropriate ETS-8075 Form Code.

7. MF CAMA TRUNK ASSIGNMENTS

7.01 MF CAMA trunks in the No. 4 machine are assigned in the same manner as MF trunks by selecting trunk relays cabled to certain SLFs. The main restriction that may be encountered is as follows: There will probably be fewer CAMA sender groups and SLFs to choose from. Office records should be segregated by the class of incoming service—MF/DP, CAMA, OVS.

7.02 As both DP, non-CAMA, and MF trunks can be terminated on an MF SLF, the DP trunks can be so designated using the trunk group ***type*** column (see Fig. 8).

8. INCOMING DIAL TRUNK ASSIGNMENTS

8.01 DP and DP CAMA trunks in a No. 4 machine will not only have an SLF appearance, but they will also be cabled to incoming register link frames (IRLFs). There are two types of IRLFs: CAMA and non-CAMA. The function of the IRLF is to attach an incoming register to the incoming trunk for the receipt of DP digits. When the sixth or ninth digit of a 7- or 10-digit call is received, the incoming register signals the incoming trunk to bid for a sender. A non-CAMA DP trunk will bid for an MF sender in the sender group with which its SLF is associated. The DP CAMA trunk will be cabled to a CAMA SLF and bid for a CAMA sender.

8.02 The incoming registers are arranged to receive DP pulses and pulse MF back to the appropriate attached sender via the incoming trunk and the SLF.

9. OVERSEAS TRUNKS

9.01 The procedures for selecting and assigning overseas trunks to an overseas SLF and a sender group are the same as those used for regular MF trunks.

10. OUTGOING SENDERS

10.01 Outgoing senders in a No. 4 office are used in those areas that require revertive or PCI pulsing to an end office. Outgoing trunks that require revertive or PCI outpulsing are wired to outgoing SLFs in the same manner that incoming trunks are cabled to incoming SLFs and are assigned in the same way.

10.02 The calls received in a No. 4 office that require outgoing revertive or PCI pulsing use two senders—an incoming sender to register the called number, and an outgoing sender to pulse to the end office.

10.03 Upon the seizure of an outgoing trunk requiring revertive or PCI pulsing, the outgoing trunk signals via the OSLF for a controller to attach an outgoing sender in the same manner that an incoming trunk attached a sender. When the outsender is attached, it signals the incoming sender via the trunk, OTLF, ITLF, and incoming trunk to transfer the stored called number digits from the outsender. It will then outpulse to the end office and release.

10.04 The same office records used for incoming SLF assignments can be used for outgoing SLF assignments.

11. SUPPLEMENTARY INFORMATION

Dial Facilities Management Practices

> Division H, Section 13c(7)—Switching Systems Management—No. 4A/4M Crossbar—Incoming Trunk Service Observing

Division H, Section 13c(8)—Switching Systems Management—No. 4A/4M Crossbar—Trunk Distributing Centers

Other

4A-ETS Translation Guide

11.01 For local reproduction purposes, blank forms of Figures 7 and 10 are provided on unnumbered pages at the end of this section. Forms E-3701 and E-4336 (Figures 8 and 9) may be ordered through your Western Electric Company distributing house.

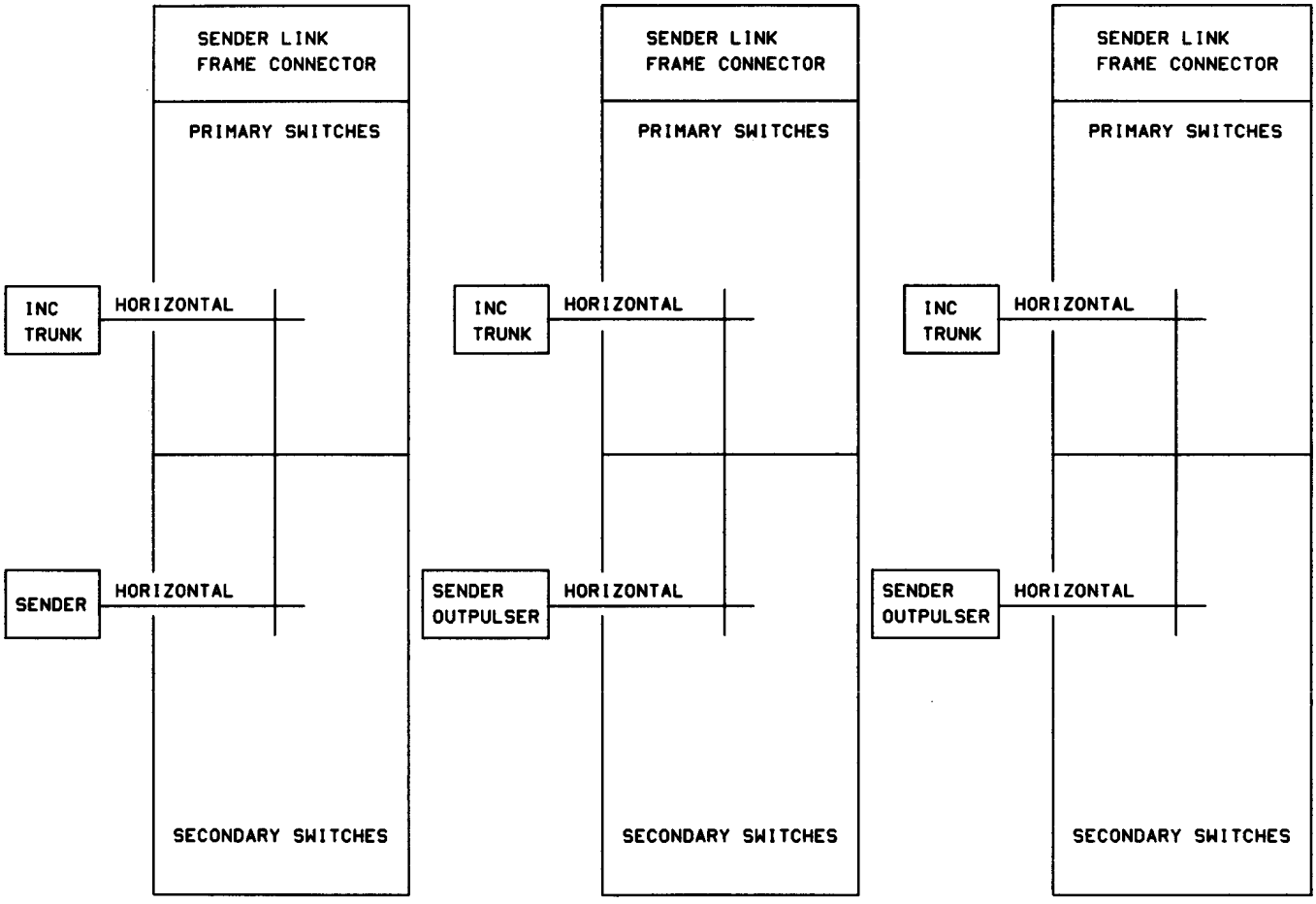


Fig. 1—Basic Sender Link Frame

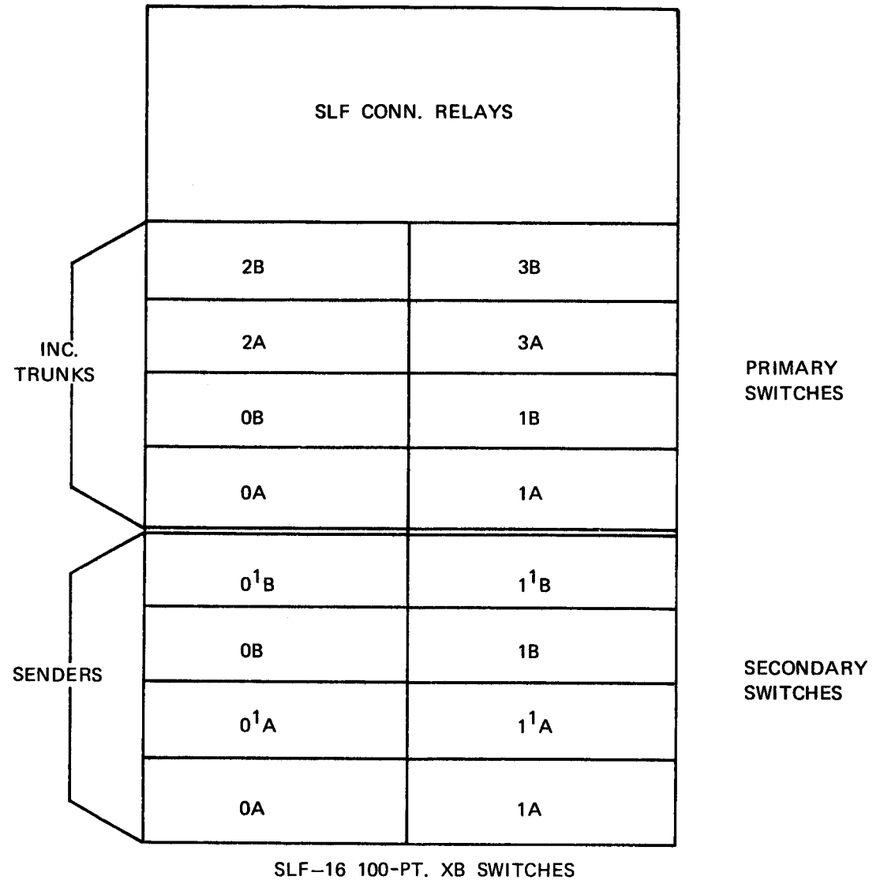
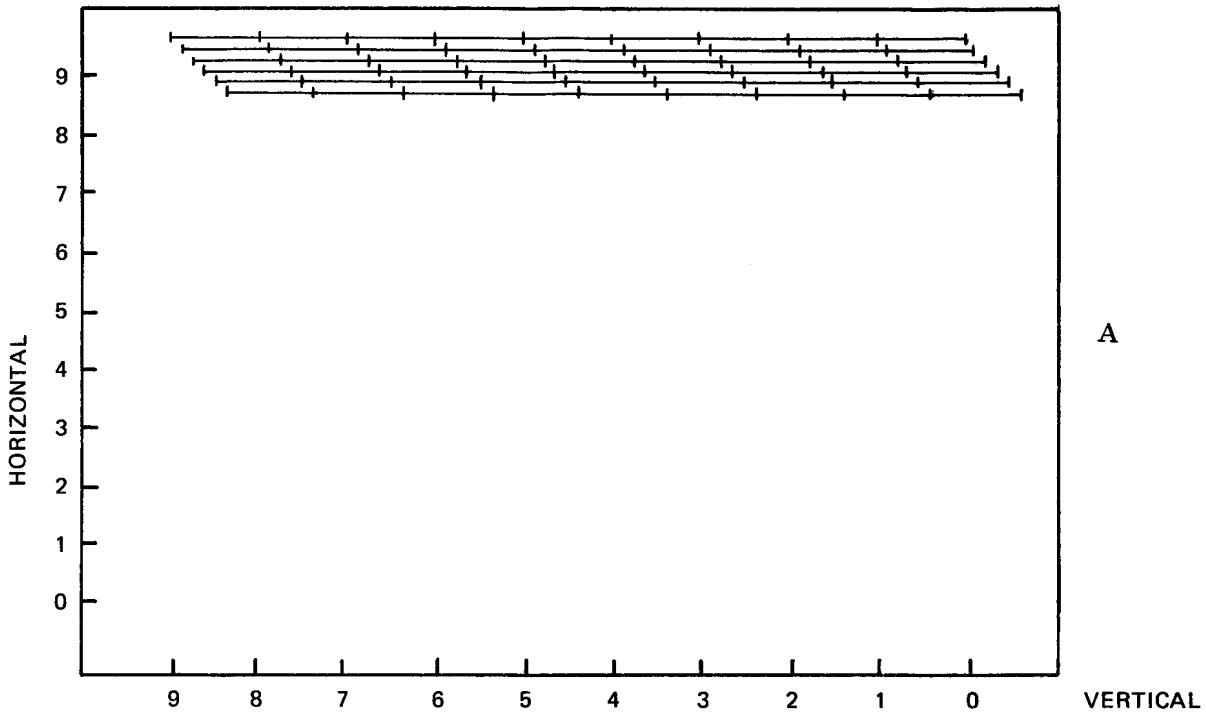


Fig. 2—Sender Link Frame

REAR VIEW OF A REGULAR
6-CONTACT, 100-POINT CROSSBAR SWITCH



REAR VIEW OF 100-POINT CROSSBAR SWITCH
IN SLF'S THAT TERMINATE INCOMING TRUNKS

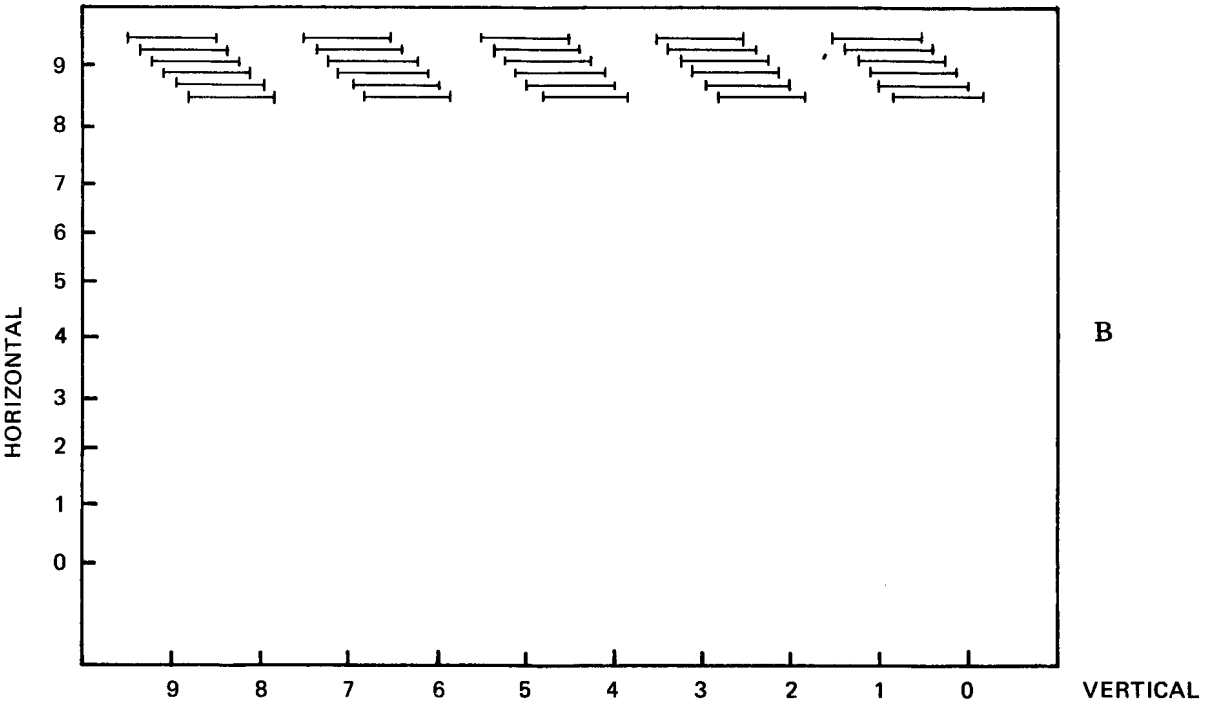


Fig. 3—Two Rear Views of a 100-Point Crossbar Switch

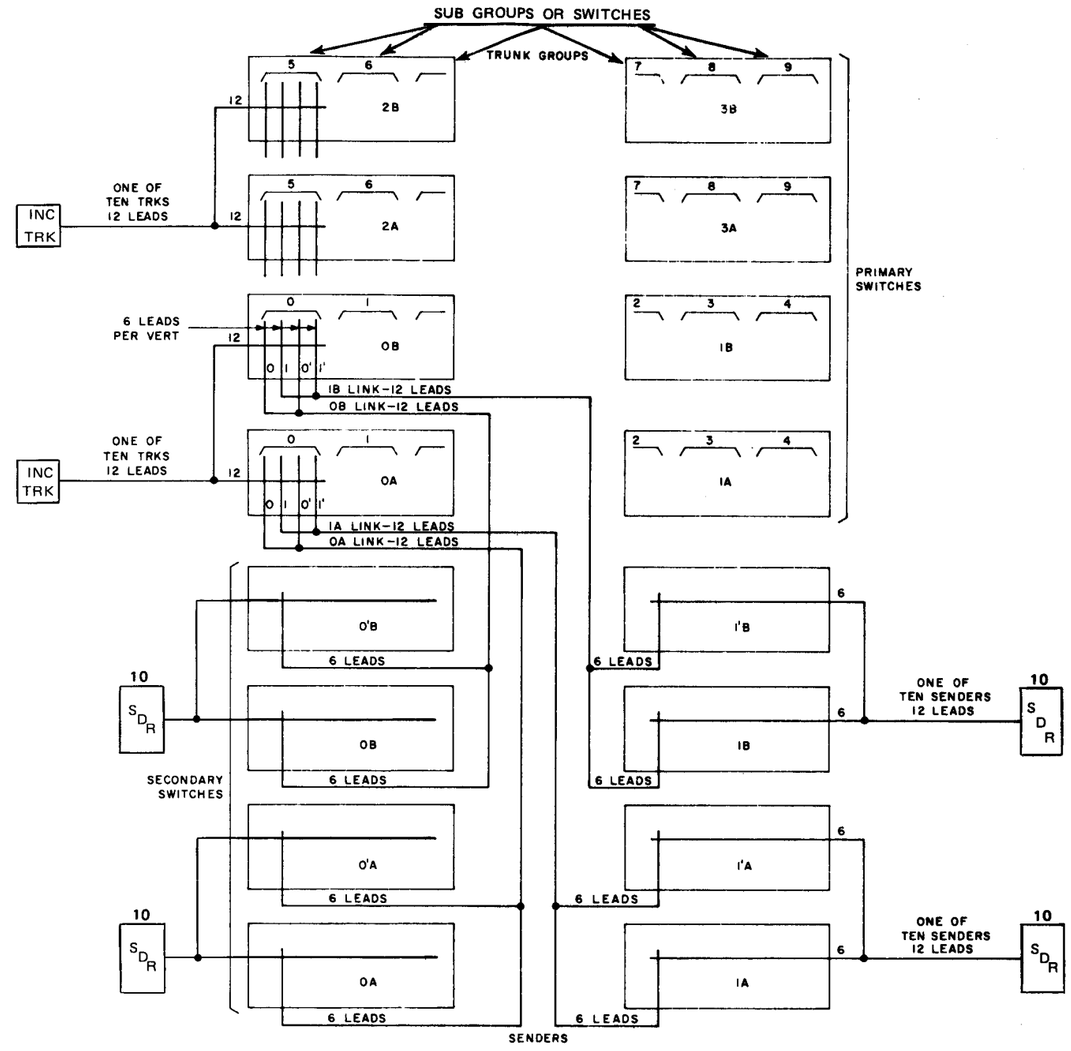
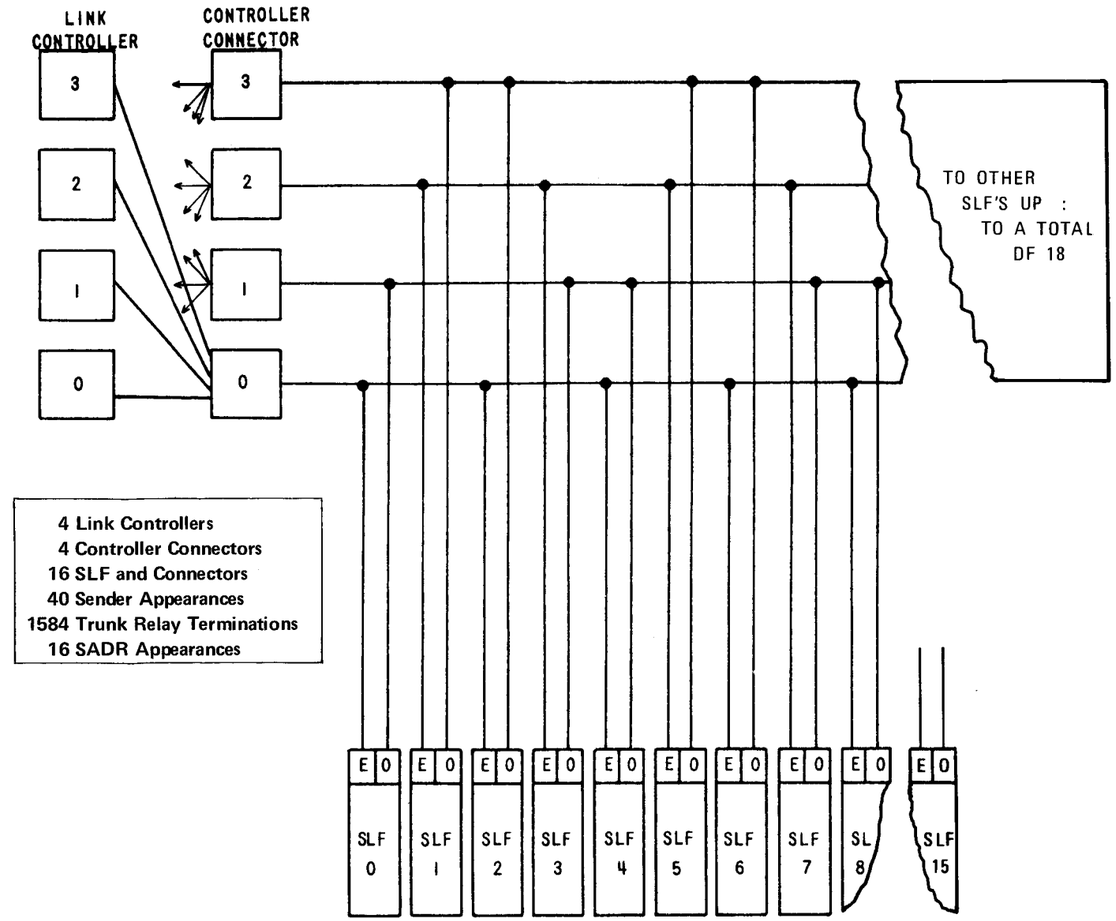


Fig. 4—Sender Link Frame Layout



4 Link Controllers
4 Controller Connectors
16 SLF and Connectors
40 Sender Appearances
1584 Trunk Relay Terminations
16 SADR Appearances

Fig. 5—Sender Link Frame Access to Link Controllers

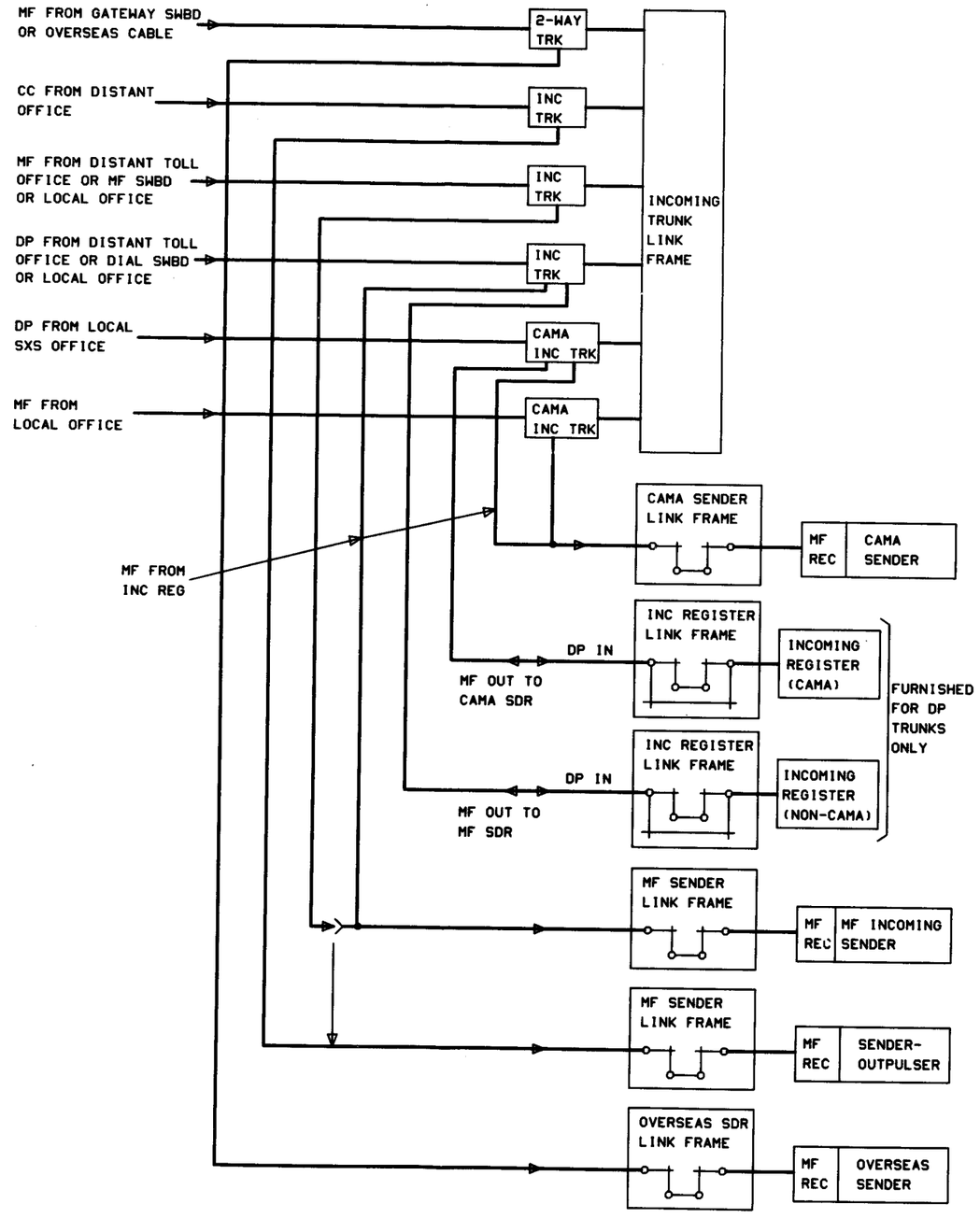


Fig. 6—Access to Incoming Senders—Office Equipped With Wire-Spring Senders

SENDER LINK FRAME ASSIGNMENT WORK SHEET

TRUNK GROUP NAME _____ QUANTITY _____ RELAY TYPE _____

SENDER POT																	
A	SLF																
B	SLF																
C	SLF																
D	SLF																
E	SLF																
F	SLF																
G	SLF																
H	SLF																
J	SLF																
K	SLF																
L	SLF																

Fig. 7—Sample Sender Link Frame Assignment Work Sheet

SENDER LINK FRAME ASSIGNMENT WORK SHEET

TRUNK GROUP NAME DESM IA DT #4T QUANTITY 12 RELAY TYPE 2IP

SENDER POT																	
A	SLF	00 1002	01	02 1004	03	04	05	06	07 1007	08	09	10 1010	11	12	13	14	15
B	SLF	16 1002	17	18 1005	19	20	21	22	23 1008	24	25	26 1011	27	28	29	30	31
C	SLF	32 1003	33	34 1006	35	36	37	38	39 1009	40	41	42 1012	43	44	45	46	47
D	SLF																
E	SLF																
F	SLF	FOR LARGE GROUPS IT MAY BE NECESSARY TO USE SEVERAL PAGES AND REPEAT SLF NUMBERS AS BELOW:															
G	SLF																
H	SLF	116 1 17 33 49	116 H2 128 144 150	116 208 224 240 256	117 301 317 383	117 ETC.	117	118	118	118	119	119	119	120	120	120	
/H	SLF	121	121	121	122	122	122	ETC.									
K	SLF																
L	SLF																

Fig. 7a—Sample Sender Link Frame Assignment Work Sheet—Example of Use

Figures 7 and 7a

FORM E-3701
(1-76)

NO. 4A/4M SWITCHING SYSTEM
SENDER LINK FRAME ASSIGNMENT RECORD

FRAME NO. _____
TYPE _____
POT _____

S-H	RELAY CKT			TRUNK GROUP INFORMATION						ITDC		
	TYPE	BAY	NO.	GROUP NAME	NO.	TYPE	W	SO	TUI	BAY	PNL	JK
49												
48												
47												
46												
45												
44												
43												
42												
41												
40												
	H:			M:		L:			TOTAL			
39												
38												
37												
36												
35												
34												
33												
32												
31												
30												
	H:			M:		L:			TOTAL			
29												
28												
27												
26												
25												
24												
23												
22												
21												
20												
	H:			M:		L:			TOTAL			
19												
18												
17												
16												
15												
14												
13												
12												
11												
10												
	H:			M:		L:			TOTAL			
09												
08												
07												
06												
05												
04												
03												
02												
01												
00												
	H:			M:		L:			TOTAL			
	H:			M:		L:			TOTAL			(CONT)

FORM E-3701
(1-76)

NO. 4A/4M SWITCHING SYSTEM
SENDER LINK FRAME ASSIGNMENT RECORD
(CONT)

FRAME NO. _____
TYPE _____
POT _____

S-H	RELAY CKT			TRUNK GROUP INFORMATION						ITDC		
	TYPE	BAY	NO.	GROUP NAME	NO.	TYPE	W	SO	TUI	BAY	PNL	JK
99												
98												
97												
96												
95												
94												
93												
92												
91												
90												
	H:			M:		L:			TOTAL			
89												
88												
87												
86												
85												
84												
83												
82												
81												
80												
	H:			M:		L:			TOTAL			
79												
78												
77												
76												
75												
74												
73												
72												
71												
70												
	H:			M:		L:			TOTAL			
69												
68												
67												
66												
65												
64												
63												
62												
61												
60												
	H:			M:		L:			TOTAL			
59												
58												
57												
56												
55												
54												
53												
52												
51												
50												
	H:			M:		L:			TOTAL			
	H:			M:		L:			TOTAL			

Fig. 8—Sample No. 4A/4M Switching System Sender Link Frame Assignment Record (Form E-3701)

NO. 4A/4M SWITCHING SYSTEM
TRUNK RELAY ASSIGNMENT RECORD

FORM E-4336

EQPD _____ WKG _____

OFFICE _____ ASSIGNED _____ VACANT _____

RELAY TYPE _____ NUMBERED _____ TO _____ SPARE _____

RELAY NO.	INCSCAN	PRE-WIRE	SENDER LINK		WORKING TRUNK		PENDING TRUNK		ITDC			OTDC		
			FR.	S-H	GROUP	NO.	GROUP	NO.	BAY	PNL	JK	BAY	PNL	JK
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(CONT)

NO. 4A/4M SWITCHING SYSTEM
TRUNK RELAY ASSIGNMENT RECORD
(CONT)

FORM E-4336

EQPD _____ WKG _____

OFFICE _____ ASSIGNED _____ VACANT _____

RELAY TYPE _____ NUMBERED _____ TO _____ SPARE _____

RELAY NO.	INCSCAN	PRE-WIRE	SENDER LINK		WORKING TRUNK		PENDING TRUNK		ITDC			OTDC		
			FR.	S-H	GROUP	NO.	GROUP	NO.	BAY	PNL	JK	BAY	PNL	JK
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Fig. 9—Sample No. 4A/4M Switching System Trunk Relay Assignment Record (Form E-4336)

NO. 4A/4M–CCIS SWITCHING SYSTEM
TRUNK RELAY ASSIGNMENT RECORD

FORM E-4336A
(PROV)

OFFICE _____ EQPD _____ WKG _____

RELAY TYPE _____ TRK BAY _____ ASSIGNED _____ VACANT _____

TO _____ SPARE _____

RELAY NO.	✓	PRE WIRE	OLC SLF		WORKING TRUNK		PENDING TRUNK		ITDC			OTDC		
			NO.	H	GROUP	NO.	GROUP	NO.	BAY	PNL	JK	BAY	PNL	JK
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NO. 4A/4M–CCIS SWITCHING SYSTEM
TRUNK RELAY ASSIGNMENT RECORD
(CONT)

FORM E-4336A
(PROV)

OFFICE _____ EQPD _____ WKG _____

RELAY TYPE _____ TRK BAY _____ ASSIGNED _____ VACANT _____

TO _____ SPARE _____

RELAY NO.	✓	PRE-WIRE	OLC SLF		WORKING TRUNK		PENDING TRUNK		ITDC			OTDC		
			NO.	S-H	GROUP	NO.	GROUP	NO.	BAY	PNL	JK	BAY	PNL	JK
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Fig. 10—Sample No. 4A/4M—CCIS Switching System Trunk Relay Assignment Record (Form E-4336A) (Prov.)

SENDER LINK FRAME ASSIGNMENT
WORK SHEET

TRUNK GROUP NAME _____ QUANTITY _____ RELAY TYPE _____

SENDER POT	
A	SLF
B	SLF
C	SLF
D	SLF
E	SLF
F	SLF
G	SLF
H	SLF
J	SLF
K	SLF
L	SLF

NO. 4A/4M–CCIS SWITCHING SYSTEM
TRUNK RELAY ASSIGNMENT RECORD

FORM E-4336A
(PROV)

EQPD _____ WKG _____

OFFICE _____ ASSIGNED _____ VACANT _____

RELAY TYPE _____ TRK BAY _____ TO _____ SPARE _____

RELAY NO.	✓	PRE WIRE	OLC SLF		WORKING TRUNK		PENDING TRUNK		ITDC			OTDC		
			NO.	H	GROUP	NO.	GROUP	NO.	BAY	PNL	JK	BAY	PNL	JK
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(CONT)

NO. 4A/4M–CCIS SWITCHING SYSTEM
TRUNK RELAY ASSIGNMENT RECORD
(CONT)

FORM E-4336A
(PROV)

EQPD _____ WKG _____

OFFICE _____ ASSIGNED _____ VACANT _____

RELAY TYPE _____ TRK BAY _____ TO _____ SPARE _____

RELAY NO.	✓	PRE-WIRE	OLC SLF		WORKING TRUNK		PENDING TRUNK		ITDC			OTDC		
			NO.	S-H	GROUP	NO.	GROUP	NO.	BAY	PNL	JK	BAY	PNL	JK
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