FEATURE DOCUMENT

INTERFACE WITH COORDINATOR CATHODE-RAY TUBE TERMINAL FEATURE

AUTOMATIC CALL DISTRIBUTION PHASE 2

2-WIRE NO. 1 AND NO. 1A ELECTRONIC SWITCHING SYSTEMS

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INTRODUCTION

1. GENERAL INFORMATION

SCOPE

1.01 This document describes the Interface With Coordinator Cathode-Ray Tube (CRT) Terminal feature for Automatic Call Distribution Phase 2 (ACD2) when used with the No. 1 or No. 1A Electronic Switching Systems (ESSs).

REASON FOR REISSUE

1.02 When this document is reissued, the reason(s) for reissue will be stated in this paragraph.

Note: The information in this document was previously contained in Section 231-090-414.

FEATURE AVAILABILITY

1.03 The Interface With Coordinator CRT Terminal feature is available with the 1E4 No. 1 ESS generic program and all active No. 1A ESS generic programs. It is optionally loadable and requires the ACD2 feature group. The Inquiry and Response System (IRES) and the Data Link Input/Output (DLIO) feature groups must also be provided.

2. DEFINITION/BACKGROUND

DEFINITION

2.01 The ***Interface With Coordinator CRT Terminal*** feature is used for ACD2 system reconfiguration, display, and control. Control and display of the system configuration are provided by a coordinator CRT terminal.

BACKGROUND

2.02 The ACD2 customer uses the coordinator CRT terminal to request information about the automatic call distribution (ACD) configuration and/or change the configuration of the ACD (Fig. 1). In most cases, the coordinator CRT terminal communicates with the ESS through the ACD-ESS Management Information System (AEMIS) computer. However, if the customer elects not to buy the AEMIS or if the AEMIS fails, the coordinator CRT terminal can be routed (manually) to communicate through the 60B Customer Premises System (CPS) cabinet.

2.03 The coordinator CRT terminal provides the customer with the capability to change the ACD configuration by modifying the current call store data. System reconfiguration is accomplished by customer-originated messages that alter the parameters controlling the routing of traffic through the ACD. Messages between the ACD2 customer and

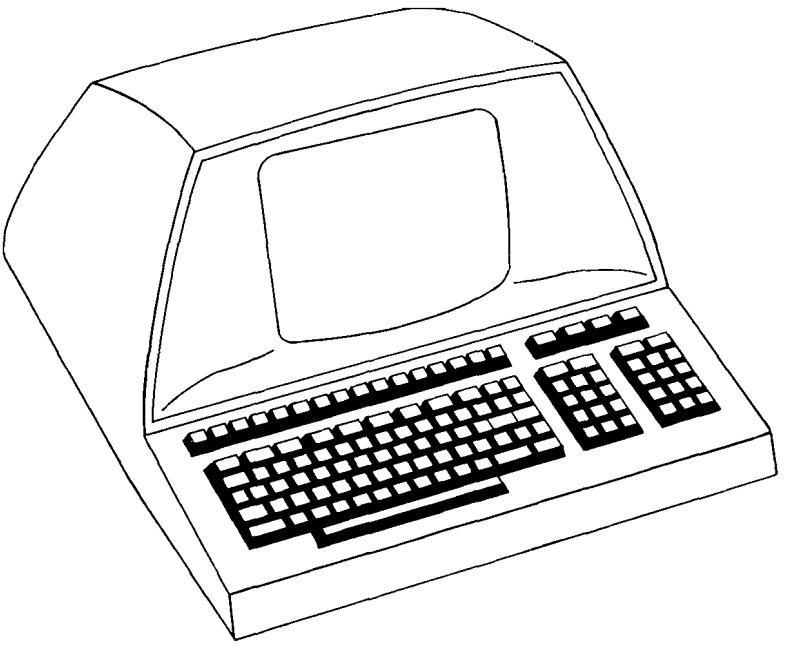

Fig. 1—Coordinator CRT Terminal

the ESS are sent or received at the coordinator CRT terminal interface (Fig. 2).

2.04 The coordinator CRT terminal consists of a CRT display and an alphanumeric keyboard. Alphanumeric codes are used when inputting and/or outputting system configuration parameters. Hard copy of the displayed information may be obtained using an optional printer.

DESCRIPTION

3. USER OPERATION

CUSTOMER

3.01 When the coordinator CRT terminal is connected to the remote data interface (RDI), located in the 60B CPS cabinet (Fig. 2), the ACD2 subscriber may perform the following functions:

- Administer functional groups (splits)
- Administer threshold values
- Administer night service routing
- Display and zero peg counts of ACD calls.

3.02 Administration of functional groups consists of:

- Displaying current functional group pattern
- Displaying functional group of agent
- Displaying agents in functional group that are not normally assigned to it
- Displaying agents in functional group
- Invoking prestored functional group pattern
- Moving agent(s) to functional group.

3.03 Administration of threshold values for intraflow/interflow consists of:

- Changing outflow threshold A
- Changing outflow threshold B
- Changing inflow threshold
- Displaying inflow threshold.

Note: Refer to item A(12) in Part 18 for a description of threshold values.

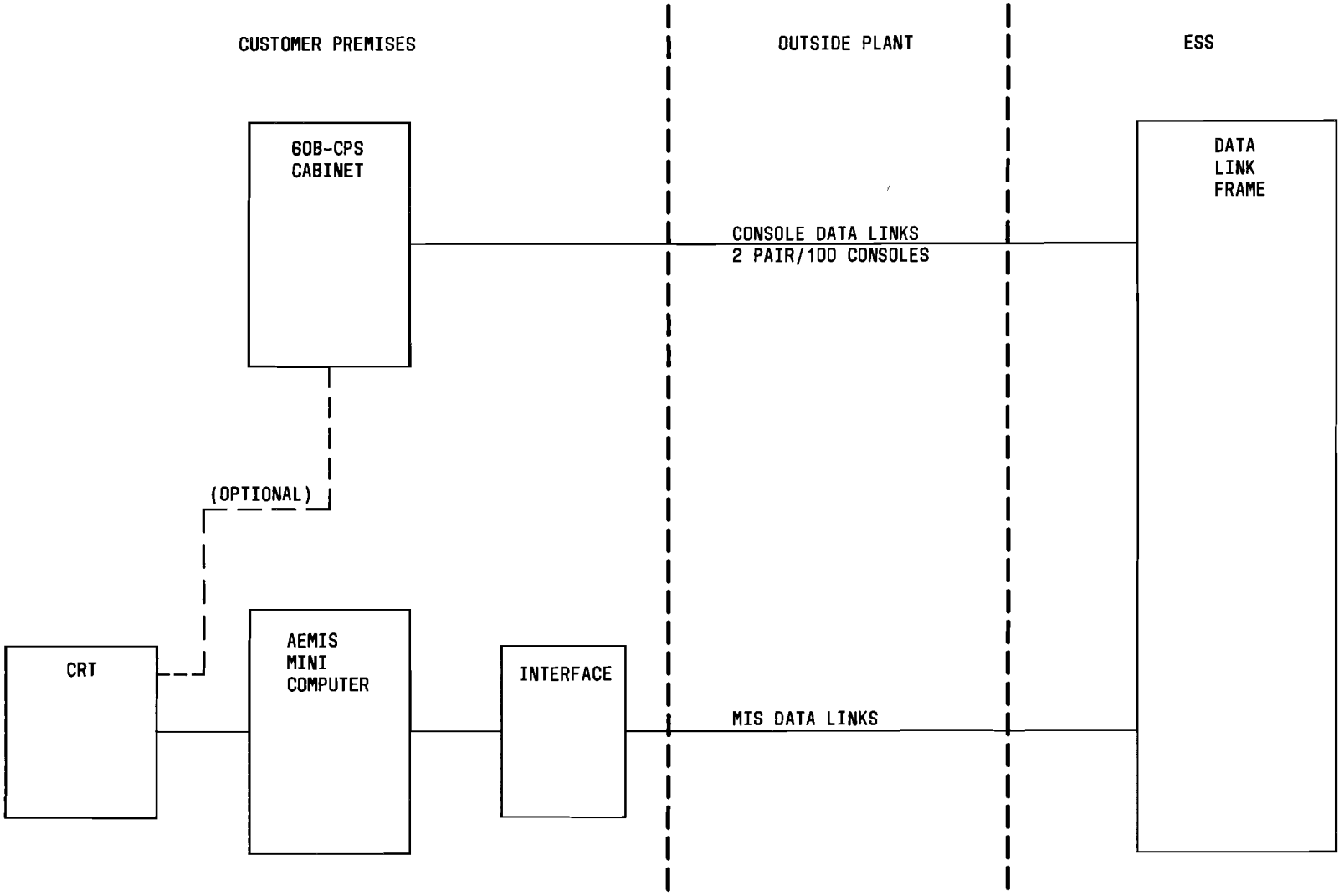

Fig. 2—CRT Terminal/ESS Central Office Interface

3.04 Administration of night service routing consists of:

- Changing night directory number
- Restoring night directory number
- Displaying night directory number.

3.05 Incoming ACD call peg counts may be displayed for a specific ACD console. Peg counts may also be zeroed for a group of ACD consoles or a specific console.

3.06 The messages that may be keyed in at the coordinator CRT terminal are shown in Table A. These messages consist of a 3-alpha character operation (OP) code, delimiters, and a maximum of three numeric parameters. Typical parameter values are shown in Table B.

3.07 There are six possible delimiters that may be used in a message: a blank, a comma, a colon, a slash, a carriage return, and a hyphen.

(a) A blank is used between the OP code and parameters for legibility.

(b) A comma is used between parameters to indicate the beginning of a new parameter.

(c) A colon is used between parameters to indicate the beginning of a new parameter in a range request.

(d) A slash is used at the end of a line to indicate a continuation of the message.

(e) A carriage return is used to indicate the end of a message and to initiate a transmission to the ESS.

(f) A hyphen is required between the access code and the area code, the area code and the prefix, and the prefix and the extension to separate the parts of the directory number.

3.08 The format of the output message for a reconfiguration request is shown in Table C. This 2-alpha character message indicates that the message was completed. The format of the output for a display request is shown in Table D. This message consists of the information requested for display.

3.09 If an error is detected at any time during input, processing, or output, a 2-alpha character message is displayed (Table E). The 2-alpha characters indicate the type of error that was detected.

3.10 To condition the coordinator CRT terminal for operation, the customer must perform the following procedures. [See references A(23) and A(24) in Part 18 for detailed operation procedures for the CRT terminal.]

(a) Set FULL/HALF switch to HALF position.

(b) Set BAUD RATE switch to 300 baud.

(c) Set ON/OFF switch to ON position. In approximately 20 seconds, the cursor will appear at HOME position with the rest of the screen dark. If the cursor does not appear after the warm-up period, type the HOME key. If this fails to produce the cursor, it is possible the brightness and/or contrast controls are maladjusted and should be adjusted as follows:

(1) Set contrast control to the middle of its range.

(2) Turn brightness control clockwise until the screen is bright; then reduce brightness slowly until the background is barely visible. The cursor should be present.

(3) Adjust brightness and contrast for desired presentation.

3.11 When the customer wishes to change the configuration of the system or to display information concerning the status of the system configuration, an appropriate message is keyed in at the coordinator CRT terminal. Refer to Table B for input message format. As the message is keyed in, the characters are displayed on the CRT. After all characters are keyed in, the customer may now confirm the correctness of the message by checking the CRT display. If an error is discovered in the display, either an individual character or a complete line, corrections may be made using the editing function contained in the CRT terminal. When the customer has

TABLE A

INPUT MESSAGE FORMATS (NOTE)

1. Change night directory number. CDN $D_0D_1D_2D_3D_4D_5D_6$, $*D_1D_2D_3D_4$ - $D_1D_2D_3$ - $D_4D_5D_6$ - $D_7D_8D_9D_{10}$ CR where D_0-D_6 are a 7-digit base directory number the asterisk indicates an access code $*D_1$-D_4 are an access code of 1 to 4 digits D_1-D_3 are the area code D_4-D_6 are the prefix D_7-D_{10} are the extension
2. Change outflow threshold A. CPO SS,TrTrTrTr CR where SS are the digits of functional group TrTrTrTr are the digits of the new threshold value
3. Change outflow threshold B. CSO SS,TrTrTrTr CR where SS are the digits of functional group TrTrTrTr are the digits of the new threshold value
4. Change inflow threshold. CIT SS,TrTrTrTr CR where SS are the digits of functional group TrTrTrTr are the digits of the new threshold value
5. Display inflow threshold. DIT SS CR where SS are the digits of functional group
6. Display peg counts. DPC TTTT:TTTT CR DPC TTTT CR where TTTT are the digits of the extension(s)
7. Display DSP CR where there are no parameters inputted

TABLE A (Contd)

INPUT MESSAGE FORMATS (NOTE)

8.	Display functional group of agent. DST TTTT$_{CR}$ where TTTT are the digits of extension
9.	Display agents in functional group that are not normally assigned to it. DTN SS$_{CR}$ where SS are the digits of functional group
10.	Display agents in functional group. DTS SS$_{CR}$ where SS are the digits of functional group
11.	Invoke prestored functional group pattern. ISP N$_{CR}$ where N is the digit pattern
12.	Move agent(s) to functional group. MTS SS,TTTT$_{CR}$ MTS SS,TTTT:TTTT$_{CR}$ MTS SS,TTTT/$_{CR}$ SS,TTTT$_{CR}$ where SS are the digits of functional group TTTT are the digits of extension
13.	Zero peg counts. ZPC TTTT$_{CR}$ ZPC TTTT:TTTT$_{CR}$ ZPC TTTT/$_{CR}$ TTTT$_{CR}$ where TTTT are the digits of extension
14.	Restore night directory number. RDN $D_0D_1D_2$-$D_3D_4D_5D_6$ where D_0-D_6 are the digits of base directory number
15.	Display night directory number. DDN $D_0D_1D_2$-$D_3D_4D_5D_6$ where D_0-D_6 are the digits of base directory number

Note: CR indicates carriage return.

TABLE B

INPUT AND OUTPUT PARAMETERS

MESSAGE DESCRIPTION	INPUT MESSAGE FORMAT		OUTPUT MESSAGE
	OP CODE	PARAMETERS (TYPICAL)	
Change night directory number	CDN	725-1225, 1-919-725-1225	OK OK
Change outflow threshold A	CPO	11,0015	OK
Change outflow threshold B	CSO	11,0016	OK
Change inflow threshold	CIT	10,0012	OK
Display inflow threshold	DIT	6327	CS VALUES PS VALUES 0013,0016,0017 0013,0016,0017 (TYPICAL)
Display peg counts	DPC	3046	145 (PEG COUNT) (TYPICAL)
Display current functional group pattern	DSP	None	7 (PATTERN NUMBER) (TYPICAL)
Display functional group of agent	DST	6442	6442 (TERMINAL) 11 (FUNCTIONAL GROUP) (TYPICAL)
Display agents in functional group that are not normally assigned to it	DTN	16	16 (FUNCTIONAL GROUP) (TYPICAL) 2233,2234, (TERMINALS) (TYPICAL)
Display agents in functional group	DTS	09	09 (FUNCTIONAL GROUP) (TYPICAL) 2885,2925, (TERMINALS) (TYPICAL)
Invoke prestored functional group pattern	ISP	6	OK
Move agent(s) to functional group	MTS MTS MTS	12,2346 11,3426:3440 14,3112/ 15,3116	OK OK OK
Zero peg counts	ZPC ZPC ZPC	2882 3286:4002 3321/ 3342	OK OK OK OK
Restore night directory number	RDN	725-1225	OK
Display night directory number	DDN	725-1225	722-3245 (TYPICAL)

TABLE C

OUTPUT MESSAGE FORMATS FOR
RECONFIGURATION REQUESTS

RECONFIGURATION MESSAGE	RESPONSE
Change night directory number	OK
Change inflow threshold	OK
Change outflow threshold A	OK
Change outflow threshold B	OK
Invoke prestored functional group pattern	OK
Move agent(s) to functional group	OK
Restore night directory number	OK
Zero peg counts	OK

TABLE D

OUTPUT MESSAGE FORMATS FOR
DISPLAY REQUESTS

DISPLAY MESSAGE	RESPONSE
Display inflow thresholds	DDDD (CS threshold) DDDD (CS threshold) DDDD (CS threshold) DDDD (PS threshold) DDDD (PS threshold) DDDD (PS threshold)
Display current functional group pattern	D (pattern number)
Display functional group of agent	DDDD (extension) DD (functional group)
Display agents in functional group that are not normally assigned to it	DD (functional group) DDDD (extensions) DDDD
Display agents in functional group	DD (functional group) DDDD DDDD (extensions) DDDD
Display peg counts	DDDD (extension) DD (peg counts)

TABLE E

ERROR MESSAGES

MESSAGE	DEFINITION
ML	Invalid message length
FP	Invalid first parameter length
SP	Invalid second parameter length
NP	Invalid number of parameters
NN	Parameter nonnumeric
UO	Undefined OP code
RE	Reenter message
NA	Not applicable
IP	Invalid Load Compensating Package
PA	Invalid parameter
IE	Invalid extension
LE	Invalid last extension
FG	Invalid functional group (split)
NF	Directory number not forwarded

verified that the message displayed on the CRT terminal is correct, a carriage return is keyed to terminate and transmit the message to the ESS.

3.12 The customer must now wait for a response from the ESS before inputting a new message. Failure to do this results in the ESS ignoring the message. The original message remains displayed on the CRT until the message is processed by the ESS and a response is returned and displayed on the CRT. If the user wants the message ignored, this can be accomplished by keying in a carriage return at the CRT terminal. When this carriage return is transmitted, it will cause the ESS to stop processing the message.

3.13 When the coordinator CRT terminal is connected to the AEMIS, the ACD subscriber may perform the following functions:

- Administer functional groups (splits).
- Administer threshold values.
- Administer night service routing.
- Provide traffic information.

3.14 Administration of functional groups consists of:

- Invoking prestored functional group pattern
- Moving agent(s) to functional group.

3.15 Administration of threshold values for intraflow/interflow consists of:

- Changing outflow threshold A
- Changing outflow threshold B
- Changing inflow threshold.

3.16 Administration of night service routing consists of:

- Changing night directory number
- Restoring night directory number.

3.17 Typical examples of messages that may be keyed in at the coordinator CRT terminal and the description of each are illustrated in Tables F through L.

3.18 If an error should be detected during processing of a message, an error message is formatted by the ESS and is returned for display on the coordinator CRT terminal.

3.19 To condition the coordinator CRT terminal for operation, the customer must perform the procedures given in paragraph 3.10.

3.20 When the customer wishes to change the configuration of the system, an appropriate message is keyed in at the coordinator CRT terminal. (Tables F through L contain input message formats.) As the message is keyed in, the characters are displayed on the CRT. The customer confirms the correctness of the message by checking the CRT display. If an error is discovered in the display, corrections may be made using the editing function contained in the CRT terminal.

3.21 Once a complete reconfiguration message has been sent to the ESS, the customer must wait

TABLE F

INVOKE PRESTORED FUNCTIONAL GROUP PATTERN

CRT TERMINAL	CRT DISPLAY
Depress ***RETURN*** key.	% □
Type in *revchan*	*% revchan* □
Depress ***RETURN*** key.	*password:* □
Type in password for supervisor as assigned locally.	(password not displayed)
Depress ***RETURN*** key.	*supervisor mode* *REQUEST?* □
Type in *isp.*	*REQUEST?isp* □
Depress ***RETURN*** key.	*package?* □
Type in 1-digit package number.	*package? (3)* □
Depress ***RETURN*** key.	*invoke prestored functional group pattern* *package (3)* *request complete* % □

for a response from the ESS before inputting a new message. This response may be either an ***acknowledgment*** message or an ***error on request*** message.

TELEPHONE COMPANY

3.22 Not applicable.

4. SYSTEM OPERATION

HARDWARE

4.01 Each ACD2 customer desiring the Interface With Coordinator CRT Terminal feature with a 60B CPS cabinet requires the following hardware:

- One ADM-2 CRT terminal
- One DLTYP2 centrex data link.

4.02 Each ACD2 customer desiring the Interface With Coordinator CRT Terminal feature with the AEMIS computer requires the following hardware:

- A minimum of one and a maximum of six DLTYP3 centrex data links may be connected to each data link interface cabinet J59207-C.
- A minimum of one and a maximum of 30 ADM-2 CRT terminals may be connected to the PDP* 11/45DW computer.

OFFICE DATA STRUCTURES

A. Translations

4.03 Activation of the Call Forwarding Variable (CFV) feature allows the customer to change and/or restore the night directory number from the coordinator CRT terminal. To accomplish this, the

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TABLE G

MOVE AGENT TO FUNCTIONAL GROUP

CRT TERMINAL	CRT DISPLAY
Depress ***RETURN*** key.	% □
Type in *revchan*	% *revchan* □
Depress ***RETURN*** key.	*password:* □
Type in password for supervisor as assigned locally.	(password not displayed)
Depress ***RETURN*** key.	*supervisor mode* *REQUEST?* □
Type in *mts*.	*REQUEST?mts* □
Depress ***RETURN*** key.	*source?* □
Depress ***RETURN*** key.	*term 1?* □
Type in 4-digit agent extension number associated with agent being moved.	*term 1? (2400)* □
Depress ***RETURN*** key.	*term 2?* □
Depress ***RETURN*** key.	*destination?* □
Type in functional group to which agent is being moved.	*destination? (2)* □
Depress ***RETURN*** key.	*move agent(s) to functional group source:, term 1: (2400), term 2:, destination: (2)* *request complete* % □

customer's line must be equipped with the CFV feature. The CFV feature is assigned to a customer's line by the CFD item in the line equipment number class 1 (LENCL1) word of the line equipment number (LEN) auxiliary block (Fig. 3).

4.04 With customer changeable inflow and outflow thresholds, the changed threshold values are stored in the supplementary head cell (SHC) in call store with a fixed backup kept in the unit type (UTYP) 55 auxiliary block (Fig. 4). As no program store backup exists for the new customer requested thresholds, restrictions are placed on the customer to insure interflow sanity. In placing inflow and outflow thresholds in call store, it is required that the inflow threshold be less than or equal to the outflow threshold. (They may both be zero.) Because of bit restrictions in the SHC, it is required that these new threshold values not be greater than 1024 seconds or approximately 17.1 minutes. An input which is in disagreement with any of these conditions will cause the request to update the thresholds to be rejected.

4.05 When the audit program detects that the new call store threshold values are in error, the call store values are replaced with the program store values. This change requires that a message be displayed on the CRT terminal to notify the customer of the change. Since the ESS did not receive a request via a data link group, the data link group translator (Fig. 5) is used to determine the CRT storage index of the data link group given by the audit program. Included in the data link group translator is a list of all data link circuit numbers.

TABLE H

CHANGE OUTFLOW THRESHOLD A

CRT TERMINAL	CRT DISPLAY
Depress ***RETURN*** key.	% □
Type in *revchan*	% *revchan* □
Depress ***RETURN*** key.	*password:* □
Type in password for supervisor as assigned locally.	(password not displayed)
Depress ***RETURN*** key.	*supervisor mode* *REQUEST?* □
Type in *cpo.*	*REQUEST?cpo* □
Depress ***RETURN*** key.	*queue?* □
Type in 4-digit queue directory number for queue whose threshold is being changed.	*queue? (6002)* □
Depress ***RETURN*** key.	*threshold?* □
Type in new primary outflow threshold value.	*threshold? (100)* □
Depress ***RETURN*** key.	*change primary outflow threshold* *queue dn: (6002), threshold: (100)* *request complete* % □

B. Parameters/Call Store

4.06 A group of engineered call store registers, CRT originating registers (CRTORs), is required when the DLIO feature group is loaded. The CRTOR is 18 (1E4/1AE4) or 19 (1E5/1AE5) words long and is used to store general information about the ACD. The CRTOR is held during an inquiry from the coordinator CRT terminal. Set cards relating the quantity of CRTORs provided and the starting address of the block of registers are contained in the I4REGS table (Fig. 6).

4.07 Parameter word L3CRT (Fig. 7) points to a contiguous block of call store with a maximum length of 520 words. Set cards DLTYP2 and DLTYP3 are associated with L3CRT and can have a value ranging from 1 to 64, indicating the number of centrex data link groups in the data link group translator. (The 60B CPS cabinet uses DLTYP2 and AEMIS uses DLTYP3.) Each type 2 and type 3 data link group is assigned 8 words of call store within the call store block to buffer messages from the coordinator CRT terminal.

4.08 Parameter word M5SHCE (Fig. 8) points to a contiguous block of call store with a maximum length of 4096 words. Set card QTLSHC is associated with M5SHCE and defines the number of 16-word SHCs. Each queueing for trunks and lines (QTL) queue (up to a maximum of 255) requiring additional call store space will be assigned an index into a fixed subblock of 16 call store words. The 16-word SHC is used to keep track of the customer's trigger values and peg counts (Fig. 9).

TABLE I

CHANGE OUTFLOW THRESHOLD B

CRT TERMINAL	CRT DISPLAY
Depress ***RETURN*** key.	% □
Type in *revchan*.	*% revchan* □
Depress ***RETURN*** key.	*password:* □
Type in password for supervisor as assigned locally.	(password not displayed)
Depress ***RETURN*** key.	*supervisor mode* *REQUEST?* □
Type in *cso*.	*REQUEST?cso* □
Depress ***RETURN*** key.	*queue?* □
Type in 4-digit queue directory number for queue whose threshold is being changed.	*queue? (6003)* □
Depress ***RETURN*** key.	*threshold?* □
Type in new secondary outflow threshold value.	*threshold? (101)* □
Depress ***RETURN*** key.	*change secondary outflow threshold* *queue dn: (6003), threshold: (101)* *request complete* % □

FEATURE OPERATION

4.09 When the coordinator CRT terminal is connected to the ***60B CPS cabinet***, processing of reconfiguration and display requests is implemented in the following manner:

(a) When the agent keys in a complete request on the coordinator CRT terminal and depresses the appropriate key, the message is sent to the agent programmable controller (procon) located in the 60B CPS cabinet. The message is stored in the agent procon, and any blanks that were keyed in for legibility are deleted. After storage, the agent procon sends the message characters, including delimiters, to the ESS over the agent data link. Refer to (a) in Fig. 10 for the RDI-to-ESS data link message format. The agent data link order contains one American Standard Code for Information Interchange (ASCII) character in items 8 through 14. The first three characters received by the ESS are assumed to be the OP code.

(b) As each character is stored by the ESS in the 8-word storage buffer (Fig. 7), a test is made to determine if it is an alpha character, a numeric character, or a valid delimiter. ESS stores the OP code in ASCII and the ASCII parameter characters in binary coded decimal (BCD). When the last characters of the OP code are stored, a binary search of the OP code is done on a program store table (Fig. 11) containing the valid OP codes. If the OP code is valid, the message is continued and message parameters are received. The function and destination of the request are determined based on the OP code. When the function and destination of the request have been determined, a

TABLE J

CHANGE INFLOW THRESHOLD

CRT TERMINAL	CRT DISPLAY
Depress ***RETURN*** key.	% □
Type in *revchan*.	% *revchan* □
Depress ***RETURN*** key.	*password:* □
Type in password for supervisor as assigned locally.	(password not displayed)
Depress ***RETURN*** key.	*supervisor mode* *REQUEST?* □
Type in *cit*.	*REQUEST?cit* □
Depress ***RETURN*** key.	*queue?* □
Type in 4-digit queue directory number for queue whose threshold is being changed.	*queue? (6001)* □
Depress ***RETURN*** key.	*threshold?* □
Type in new inflow threshold value.	*threshold? (99)* □
Depress ***RETURN*** key.	*change inflow threshold* *queue dn: (6001), threshold: (99)* *request complete* % □

CRTOR is seized and data needed by the designated routine to complete processing is entered.

(c) When the input message has been processed, an output message is formatted by the ESS. This output message is sent out through block data link loading to the 60B cabinet on the same data link that was used for the input message. The output message is then displayed on the CRT terminal. If an error is detected at any time during input, processing, or output, the ESS formats an error message. This message is sent over the same data link that was used for the input message. The error message is then displayed on the CRT terminal. Refer to (b) in Fig. 10 for the ESS-to-RDI data link message format.

4.10 When the coordinator CRT terminal is connected to the ***AEMIS***, processing of reconfiguration requests is implemented in the following manner.

(a) When the AEMIS computer receives a reconfiguration request from the CRT terminal, the request is formatted for transmission over the AEMIS data link. Refer to Fig. 12 for the AEMIS-to-ESS data link message format. The AEMIS data link order contains the information needed by the ESS to process the message in items 0 through 19. Items 16 through 19 contain the order codes which indicate the first, second, third, or fourth message of a sequence. The AEMIS data link orders are transmitted to the ESS, one word at a time, over the AEMIS data link. Data from each data link order is stored in the 8-word storage buffer (Fig. 7). When the last data link order has been stored, the ESS processes the message as detailed in paragraph 4.09(b).

TABLE K

CHANGE NIGHT DIRECTORY NUMBER

CRT TERMINAL	CRT DISPLAY
Depress ***RETURN*** key.	*%* □
Type in *revchan.*	*% revchan* □
Depress ***RETURN*** key.	*password:* □
Type in password for supervisor as assigned locally.	(password not displayed)
Depress ***RETURN*** key.	*supervisor mode* *REQUEST?* □
Type in *cdn.*	*REQUEST?cdn* □
Depress ***RETURN*** key.	*base?* □
Type in 7-digit night directory number as assigned locally.	*base? (949-6001)* □
Depress ***RETURN*** key.	*access?* □
Depress ***RETURN*** key.	*area?* □
Depress ***RETURN*** key.	*remote?* □
Type in 7-digit remote directory number as assigned locally.	*remote? (671-1234)* □
Depress ***RETURN*** key.	*change night directory number* *base dn: (949-6001), access code:,* *area code; remote (671-1234)* *request complete* *%* □

(b) When the input message has been processed, an output message is formatted by the ESS. This output message is sent out through block data link loading to the AEMIS computer on the same data link that was used for the input message. Refer to Fig. 13 for the ESS-to-AEMIS data link message format. The output message is then displayed on the CRT terminal.

(c) If an error is detected during processing, the ESS formats an error message and sends the message to the AEMIS computer over the same AEMIS data link that was used for the input. The message is then displayed on the CRT terminal.

CHARACTERISTICS

5. FEATURE ASSIGNMENT

5.01 The Interface With Coordinator CRT Terminal feature is provided for ACD2 customers on a per centrex group basis.

6. LIMITATIONS

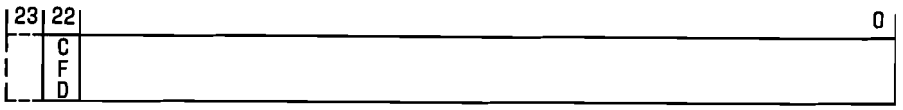
OPERATIONAL

6.01 Only one agent can be inputting on the coordinator CRT terminal at any one time. This applies when the CRT terminal is connected to the AEMIS minicomputer or the 60B CPS cabinet.

TABLE L

RESTORE NIGHT DIRECTORY NUMBER

CRT TERMINAL	CRT DISPLAY
Depress ***RETURN*** key.	% □
Type in *revchan.*	*% revchan* □
Depress ***RETURN*** key.	*password:* □
Type in password for supervisor as assigned locally.	(password not displayed)
Depress ***RETURN*** key.	*supervisor mode REQUEST?* □
Type in *rdn.*	*REQUEST?rdn* □
Depress ***RETURN*** key.	*base?* □
Type in base dn.	*base? (949-6000)* □
Depress ***RETURN*** key.	*restore night directory number base (949-6000) request complete* % □



NOTE: BIT 23 EXISTS IN NO. 1A ESS ONLY

LEGEND:
CFD - CALL FORWARDING VARIABLE

Fig. 3—Line Equipment Number Auxiliary Block

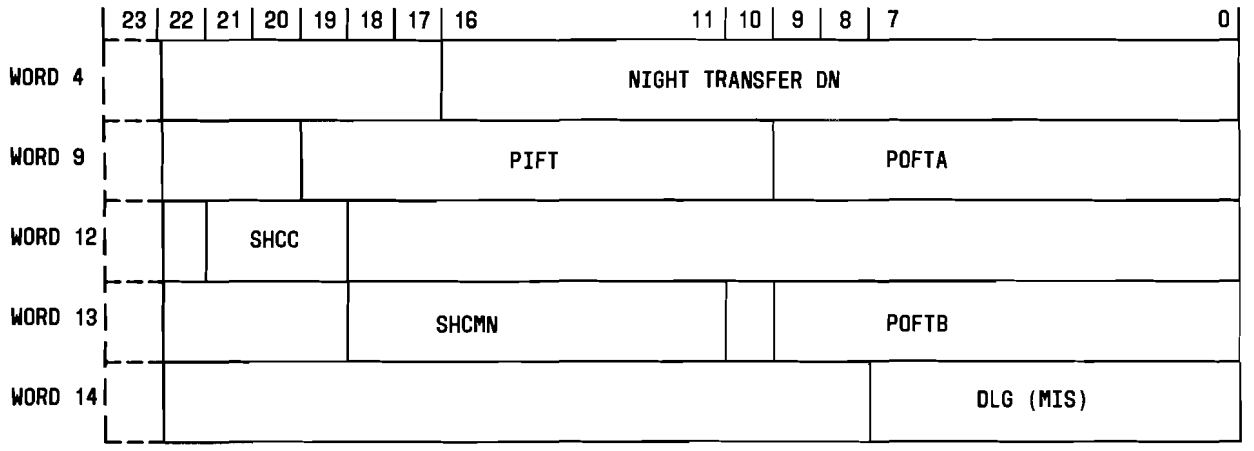
ASSIGNMENT

6.02 A maximum of 30 CRT terminals may be connected to the AEMIS computer. The actual number which may be connected is determined by the AEMIS configuration.

6.03 Only one CRT terminal may be connected to a 60B CPS cabinet. When more than one 60B CPS cabinet is used, one CRT terminal may be connected to each 60B CPS cabinet.

6.04 The following restrictions apply to the base station when using the Interface With CRT Terminal feature to change the night directory number.

(a) The base station must be a line or Centrex/ESSX-1 console within the same Centrex/ESSX-1 group as the CRT terminal.



NOTE: BIT 23 EXISTS IN NO. 1A ESS ONLY.

LEGEND:
DLG - DATA LINK GROUP
PIFT - PROGRAM STORE INFLOW TRIGGER IN SECONDS
POFTA - PROGRAM STORE OUTFLOW TRIGGER "A" IN SECONDS
POFTB - PROGRAM STORE OUTFLOW TRIGGER "B" IN SECONDS
SHCC - SUPPLEMENTARY HEAD CELL CODE
SHCMN - SUPPLEMENTARY HEAD CELL MEMBER NUMBER

Fig. 4—UTYP55 Auxiliary Block

(b) The base station must be able to be reached via a 7-digit directory number.

(c) The base station must have the CFV feature.

(d) If the remote station is outside the Centrex/ESSX-1 group, that group must have the call forwarding outside option of the CFV feature.

6.05 The following restrictions apply to the remote station when using the feature to change the night directory number.

(a) The remote station must be an assigned number and cannot be a number which results in intercept treatment.

(b) The remote station cannot require simulated facility group access.

(c) The remote station cannot be of the international direct distance dialing type.

(d) The remote station cannot lead directly to a tie trunk.

(e) If the remote station requires termination in a distant office, the associated route index (RI) must specify transfer OK (TROK).

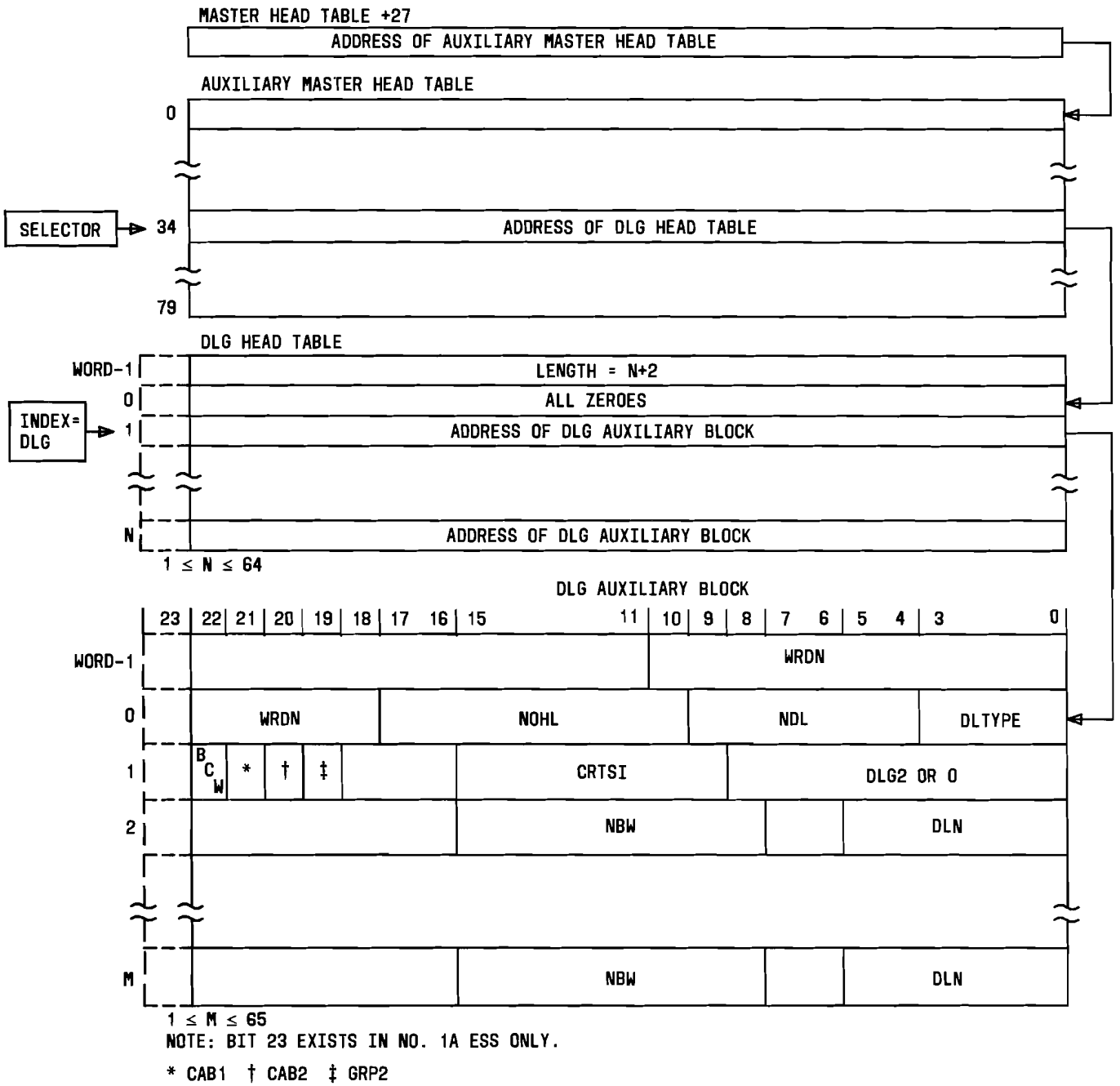
(f) The remote station cannot require more than 14 digits including an access code to be reached.

(g) The remote station cannot be a free number (ie, a line to which calls are not charged).

6.06 The following general restrictions apply to the feature when it is used to change the night directory number.

(a) A requested CRT terminal action will not occur if the recent change area is full or call forwarding recent changes are inhibited.

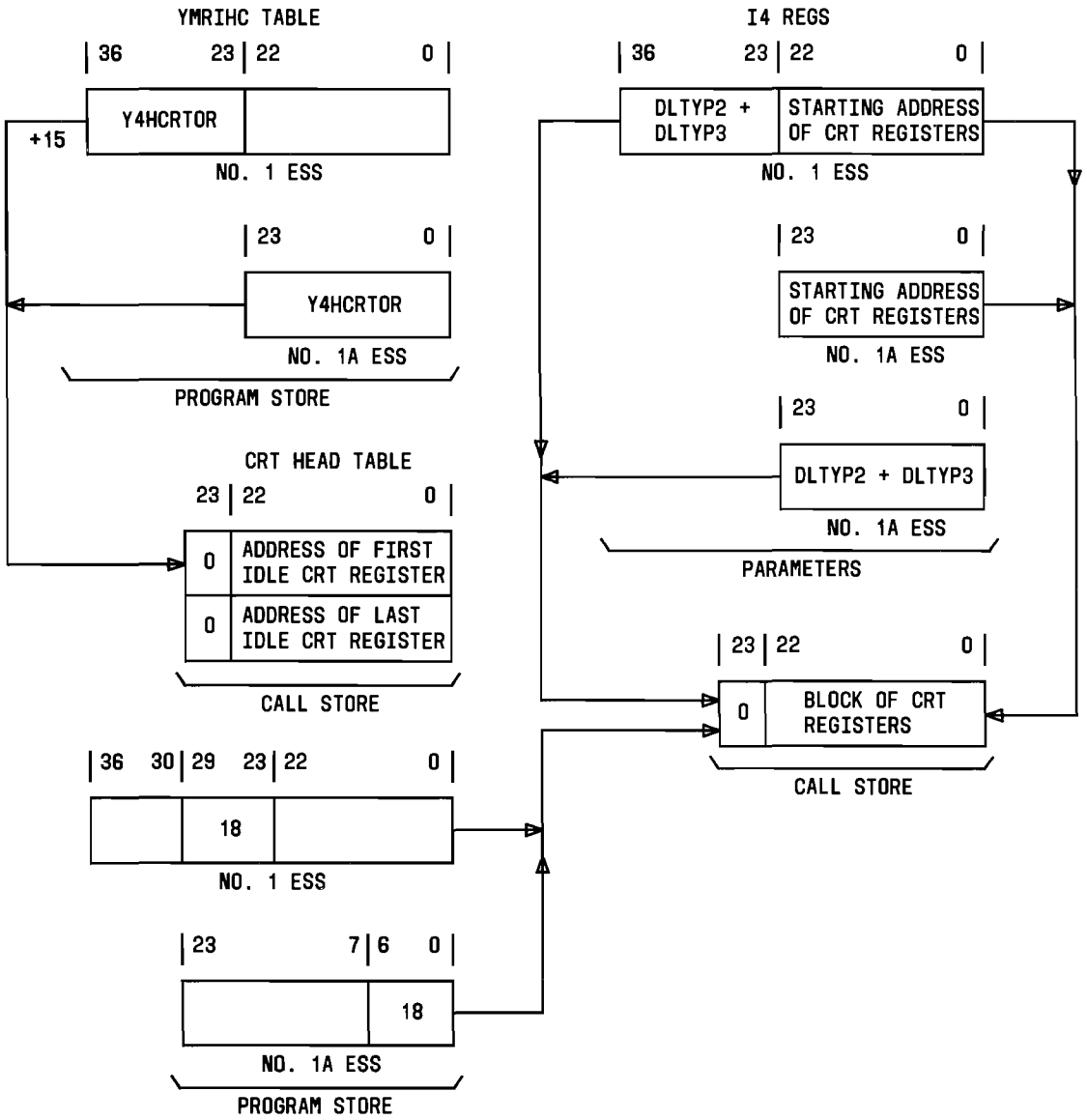
(b) Where the remote stations are different, a requested CRT terminal action will not occur



LEGEND:

BCW - BEEHIVE CALL WAITING INDICATOR
CAB1 - COMMON AUDIO BUS, 1ST GROUP OF 50 ACD AGENTS
CAB2 - COMMON AUDIO BUS, 2ND GROUP OF 50 ACD AGENTS
CRTSI - CRT STORAGE INDEX
DLG2 - DLG OF A BACKUP CRT
DLN - DATA LINK NUMBER
DLTYPE - TYPE OF CENTREX DATA LINK
GRP2 - REMOTE DATA INTERFACE IS EQUIPPED WITH 2ND GROUP OF 50 ACD AGENTS
NBW - NUMBER OF BUFFER WORDS FOR ASSOCIATED DLN
NDL - NUMBER OF DL(S) IN DLG
NOHL - NUMBER OF HUNT LISTS IN AUXILIARY BLOCK
WRDN - NUMBER OF WORDS IN AUXILIARY BLOCK

Fig. 5—Data Link Group Translator



LEGEND:

Y4HCRTOR – ADDRESS OF CRT HEAD TABLE
18 – SIZE OF CRT REGISTER
DLTYP2 – VALUE OF SET CARD DLTYP2 (QUANTITY OF CENTREX DATA LINK GROUPS WITH OLTYP2 IN THE DLG TRANSLATOR)
DLTYP3 – VALUE OF SET CARD DLTYP3 (QUANTITY OF CENTREX DATA LINK GROUPS WITH DLTYP3 IN THE DLG TRANSLATOR)

Fig. 6—Parameters and CRTOR

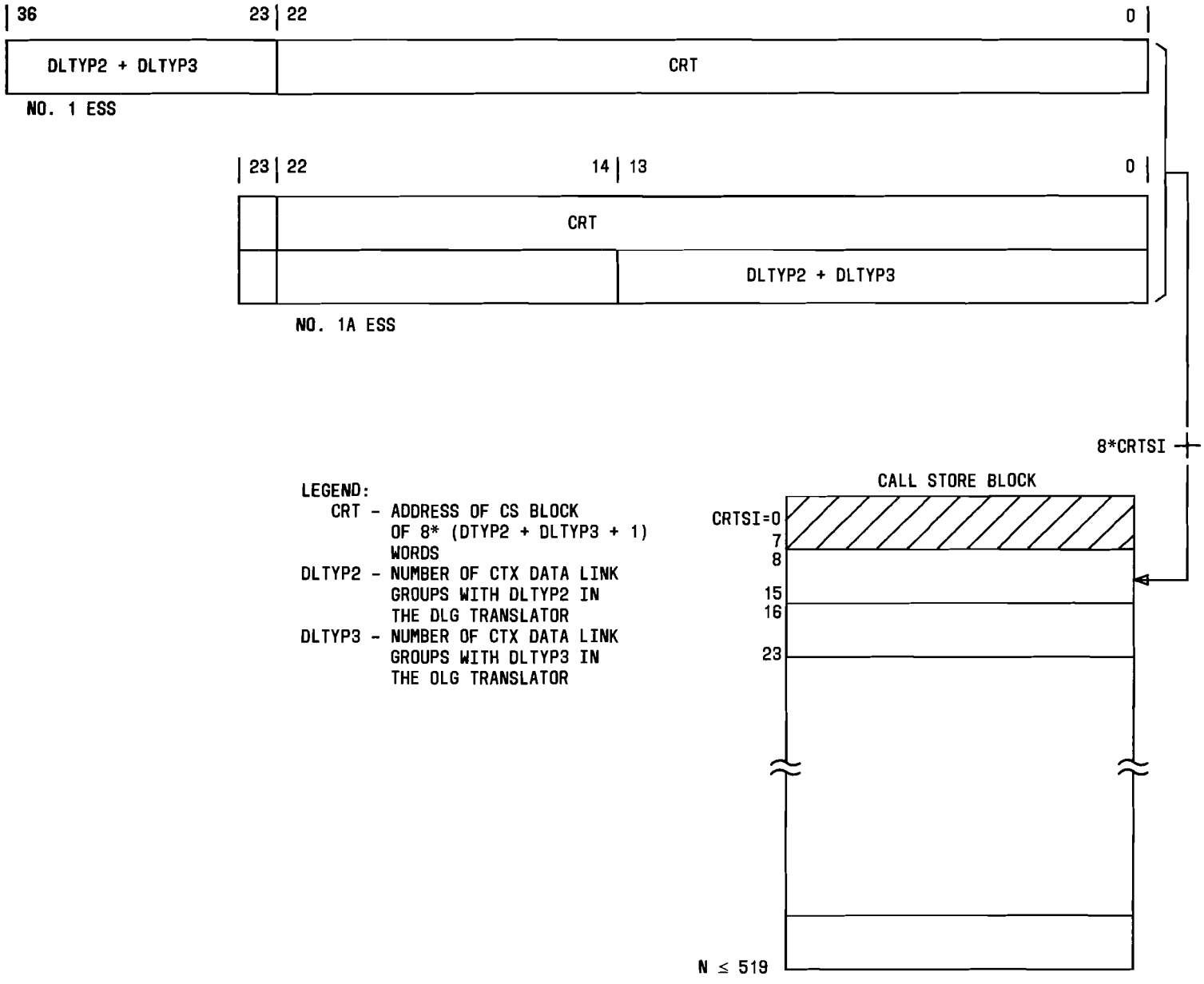


Fig. 7—Parameter Word L3CRT and Call Store Block

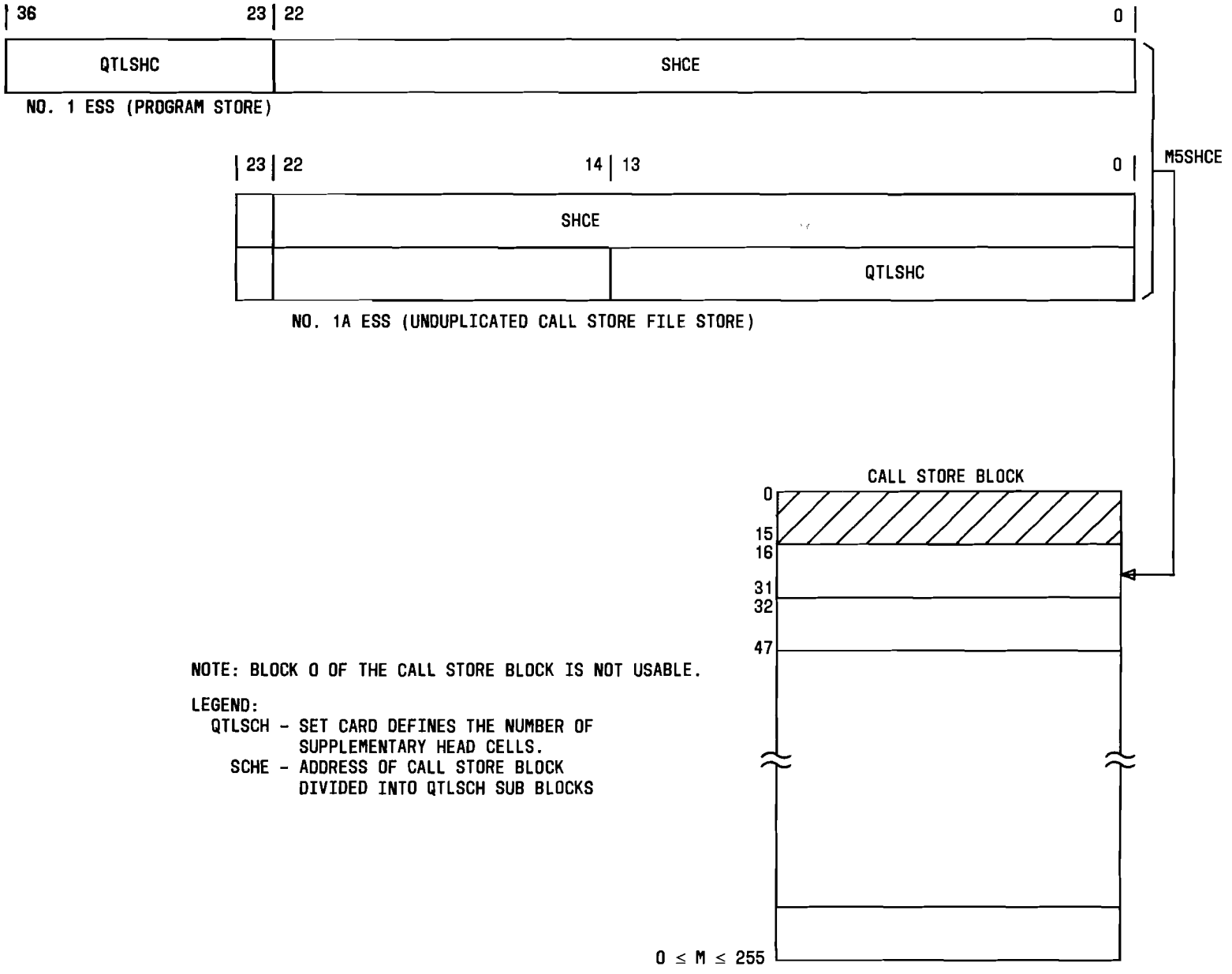


Fig. 8—Parameter Word M5SHCE and Call Store Block

	22	21 — 17	16 — 11	10 — 8	7 — 0
0					QTL GROUP NUMBER
1	0	$\overline{\text{CIFT}}$		CIFT	
2	0	$\overline{\text{COFTA}}$		COFTA	
3	0	$\overline{\text{COFTB}}$		COFTB	
4	# CALLS DELAYED (ON Q > 1 SEC) - PRIDRITY				
5	# CALLS DELAYED (ON Q > 1 SEC) - ALL				
6	Q USAGE OF ANSWERED CALLS (PRIORITY) - 15 MIN				
7	Q USAGE OF ANSWERED CALLS (ALL) - 100 SEC				
8	Q USAGE OF ANSWERED CALLS (ALL) - 15 MIN				
9	DIRECT INCOMING PEG COUNT (100 SEC)				
10	DIRECT INCOMING PEG COUNT (15 MIN)				
11	INTRAFLOW OUT (15 MIN)			INTRAFLOW IN (15 MIN)	
12	TSI TIME BOUND		ANS > TSI TB SEC PEG COUNT		
13	LONG WAITING - TIME BOUND		ANS ≤ TSI TB SEC PEG COUNT		
14	ANS > TSI TB SEC (100 SEC PEG)			ANS ≤ TSI TB SEC (100 SEC PEG)	
15	INTRAFLOW OUT (100 SEC PEG)				

LEGEND:
ANS - ANSWER
CIFT - INFLOW TRIGGER
COFTA - CALL STORE OUTFLOW TRIGGER A
COFTB - CALL STORE OUTFLOW TRIGGER B
MIN - MINUTE
SEC - SECOND
TSI - TRAFFIC SERVICE INDEX

Fig. 9—Supplementary Call Store Head Cell

if a simultaneous activation is generated from both the base station and CRT terminal.

7. INTERACTIONS

STATIC

7.01 Not applicable.

DYNAMIC

7.02 All communication between the ESS and the AEMIS computer or the 60B CPS cabinet is over the centrex data links; therefore, the basic DLIO feature is a prerequisite for the Interface With Coordinator CRT Terminal feature.

7.03 The base directory number (base station) must have the CFV feature in order for an agent to change the night directory number from the coordinator CRT terminal. If the remote station is outside the centrex group, that group must have call forwarding outside and the remote station must not be accessed via a simulated facilities group.

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
P A	0	0	1	0	0	1		ASCII CHARACTER									PORT NUMBER						

(a) RDI-TO-ESS DATA LINK MESSAGE FORMAT

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
P A	1	1	0	1	0			ASCII CHAR 1									ASCII CHAR 2						

(b) ESS TO RDI DATA LINK ORDER FORMAT

Fig. 10—ESS-RDI Data Link Message Format

22	21	20	19	18	15	14	13	10	9	7	6	0
PARAM COUNT		OPCHR 1					OPCHR 2				OPCHR 3	
FIRST-PARAM-COUNT				SECOND-PARAM-COUNT		SSTYPE			FORMAT			
PARAM COUNT		OPCHR 1					OPCHR 2				OPCHR 3	
FIRST-PARAM-COUNT				SECOND-PARAM-COUNT		SSTYPE			FORMAT			

N = 66

LEGEND:

FIRST-PARAM-COUNT - VALIO NUMBER OF DIGITS FOR FIRST PARAMETER OF GIVEN OPCODE
FORMAT - INDICATES THE FORMAT OF MESSAGE DETERMINING ITS DESTINATION
OPCHR 1 - ASCII REPRESENTATION OF FIRST CHARACTER OF OPCODE
OPCHR 2 - ASCII REPRESENTATION OF SECOND CHARACTER OF OPCODE
OPCHR 3 - ASCII REPRESENTATION OF THIRD CHARACTER OF OPCODE
PARAM-COUNT - THE NUMBER OF VALID PARAMETERS FOR THE GIVEN OPCODE
SECOND-PARAM-COUNT - VALID NUMBER OF DIGITS FOR SECOND PARAMETER OF GIVEN OPCODE
SSTYPE - THE SUB-SUBTYPE OF OPCODE

Fig. 11—Program Store Table Layout

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	0	0		0	ASCII (C)							ASCII (I)						
EP	0	0	1	0	0	0	1										ASCII (T)						
EP	0	0	1	0	0	1	0	D3				D2				D1				DO			
EP	0	0	1	0	0	1	1	T3				T2				T1				TO			

LEGEND:
D3 – DO = QUEUE DIRECTORY NUMBER

(a) CHANGE IN FLOW THRESHOLD

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	0	0		0	ASCII (C)							ASCII (P)						
EP	0	0	1	0	0	0	1										ASCII (O)						
EP	0	0	1	0	0	1	0	D3				D2				D1				DO			
EP	0	0	1	0	0	1	1	T3				T2				T1				TO			

LEGEND:
D3 – DO = QUEUE DIRECTORY NUMBER
T3 – TO = THRESHOLD VALUE

(b) CHANGE OUT FLOW THRESHOLD A

Fig. 12—AEMIS Data Link Message Formats (AEMIS to ESS) (Sheet 1 of 5)

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	0	0		0	ASCII (C)							ASCII (S)						

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	0	1										ASCII (O)						

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	1	0	D3				D2				D1				D0			

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	1	1	T3				T2				T1				T0			

LEGEND:
D3 – D0 = QUEUE DIRECTORY NUMBER
T3 – T0 = THRESHOLD VALUE

(c) CHANGE OUT FLOW THRESHOLD B

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	0	0		0	ASCII (I)							ASCII (S)						

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	0	1										ASCII (P)						

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	1	1													LCP NO.			

LEGEND:
LCP NO. = BCD ENCODING OF THE LOAD COMPENSATING PACKAGE NUMBER

(d) INVOKE PRESTORED FUNCTIONAL GROUP PATTERN

Fig. 12—AEMIS Data Link Message Formats (AEMIS to ESS) (Sheet 2 of 5)

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	0	0		B	ASCII (M)							ASCII (T)						
EP	0	0	1	0	0	0	1										ASCII (S)						
EP	0	0	1	0	0	1	0										FUNCTIONAL GROUP #D1			FUNCTIONAL GRDUP #DO			
EP	0	0	1	0	0	1	1	D3				D2				D1				DO			

NOTE:
WHEN A RANGE OF TERMINALS IS TO BE MOVED, AN ADDITIONAL "0010" MESSAGE WILL PRECEDE THE "0011" MESSAGE CONTAINING THE LOW NUMBERED AGENT'S CENTREX EXTENSION NUMBER. THE LAST MESSAGE WILL CONTAIN THE HIGH NUMBERED AGENT'S CENTREX EXTENSION NUMBER.

LEGEND:
(B)IT 0 = SINGLE TERMINAL TO BE MOVED.
1 = RANGE OF TERMINALS TO BE MOVED.

FUNCTIONAL GROUP # DO = BCD ENCODING OF THE LEAST SIGNIFICANT DIGIT OF THE NEW FUNCTIONAL GROUP NUMBER.

FUNCTIONAL GROUP # D1 = BCD ENCODING OF THE MOST SIGNIFICANT DIGIT OF THE NEW FUNCTIONAL GROUP NUMBER.

D3 - DO = CENTREX EXTENSION NUMBER

(e) MOVE AGENT(S) TO FUNCTIONAL GROUP

Fig. 12—AEMIS Data Link Message Formats (AEMIS to ESS) (Sheet 3 of 5)

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
EP	0	0	1	0	0	0	0		0	ASCII (C)							ASCII (D)						
EP	0	0	1	0	0	0	1						NO. DIGITS				ASCII (N)						
EP	0	0	1	0	0	1	0						D6				D5				D4		
EP	0	0	1	0	0	1	0	D3					D2				D1				D0		
EP	0	0	1	0	0	1	0	D13					D12				D11				D10		
EP	0	0	1	0	0	1	0						D9				D8				D7		
EP	0	0	1	0	0	1	0						D6				D5				D4		
EP	0	0	1	0	0	1	1	D3					D2				D1				D0		

NOTE:
THE MESSAGES CONTAINING D13 THROUGH D7 ARE ALWAYS SENT. THEY FORM AN ACCESS CODE (D13 – D10) AND THE AREA CODE (D9 – D7) FOR THE REMOTE NIGHT DIRECTORY NUMBER. WHEN AN ACCESS CODE OR AREA CODE IS NOT REQUIRED, THESE FIELDS WILL CONSIST OF ALL "0"'S.

LEGEND:
NO. DIGITS = BINARY ENCODING OF THE NUMBER OF DIGITS IN THE REMOTE NIGHT DIRECTORY NUMBER EXCLUDING THE ACCESS CODE.
D6 – D0 = BASE NIGHT
D13 – D10 = ACCESS CODE
D9 – D0 = REMOTE NIGHT DIRECTORY NUMBER

(f) CHANGE NIGHT DIRECTORY NUMBER

Fig. 12—AEMIS Data Link Message Formats (AEMIS to ESS) (Sheet 4 of 5)

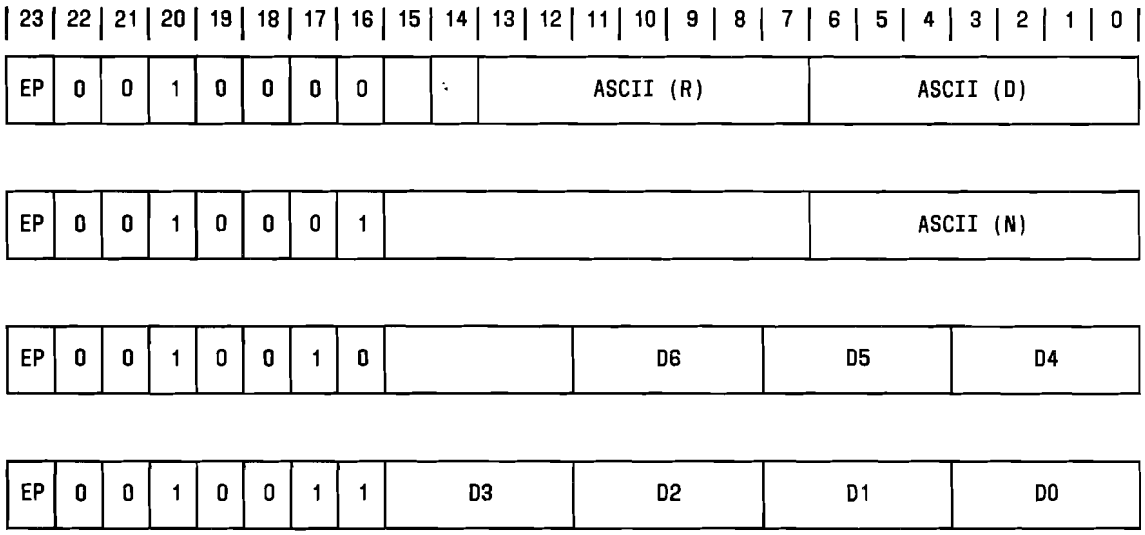


Fig. 12—AEMIS Data Link Message Formats (AEMIS to ESS) (Sheet 5 of 5)

8. RESTRICTION CAPABILITY

8.01 Not applicable.

INCORPORATION INTO SYSTEM

9. INSTALLATION/ADDITION/DELETION

9.01 Figure 14 illustrates the procedure for adding the Interface With Coordinator CRT Terminal feature. Part 13 contains details for testing.

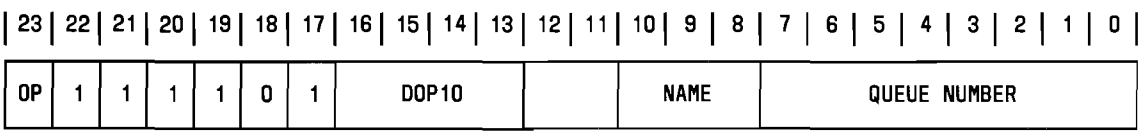
9.02 The following set cards are applicable to the feature.

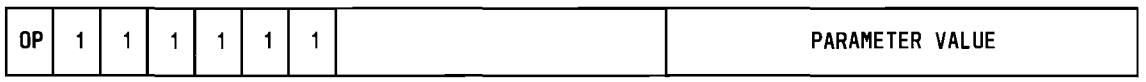
SET CARD	DEFINITION
9FIRES	Inquiry and Response Feature Package
9SIRES	Inquiry and Response Feature Group
9FDLIO	Data Link Input/Output Feature Package
9SDLIO	Data Link Input/Output Feature Group
DLTYP2	Data Link Groups—Type 2
DLTYP3	Data Link Groups—Type 3
QTLSHC	Queueing Register Supplementary Head Cell
9SACD2	ACD-Phase 2 Feature Group.

10. HARDWARE REQUIREMENTS

Note: This part contains cost factors and determination of quantities. Central Office Equipment Engineering System (COEES) Planning and Mechanized Ordering Modules are the recommended procedures for developing these requirements. However, for planning purposes or if COEES is not available, the following guidelines may be used.

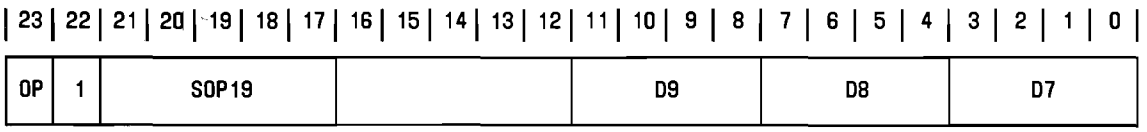
10.01 One ADM-2 (Lear Seigler) CRT terminal may be connected to a 60B CPS cabinet. When additional 60B CPS cabinets are used, one CRT terminal may be connected to each 60B CPS cabinet. One DLTYP2 centrex data link is required for each





LEGEND:
NAME 000 = IN FLOW THRESHOLD
001 = OUT FLOW THRESHOLD A
010 = OUT FLOW THRESHOLD B

(a) QUEUE THRESHOLDS



LEGEND:
D9 D8 D7 = ESS BCD ENCODING OF AREA CODE (WITH D7 THE LEAST SIGNIFICANT DIGIT)
THIS MESSAGE WILL ONLY BE SENT WHEN AN AREA CODE EXISTS FOR THE REMOTE NIGHT DIRECTORY NUMBER ACTIVATED

(b) REMOTE NIGHT DIRECTORY NUMBER AREA CODE

Fig. 13—AEMIS Data Link Message Formats (ESS to AEMIS) (Sheet 1 of 2)

60B CPS cabinet provided. A maximum of ten 60B CPS cabinets may be used in the configuration.

10.02 A minimum of 1 and a maximum of 30 ADM-2 (Lear Seigler) CRT terminals may be connected to the PDP 11/45DW minicomputer (Digital Equipment Corporation), depending upon the hardware configuration. A maximum of two data link interface cabinets J59207-C may be used in the configuration. A minimum of one and a maximum of six DLTYP3 centrex data links may be connected to each data link interface cabinet J59207-C.

11. SOFTWARE REQUIREMENTS

Note: This part contains cost factors and determination of quantities. Central Office Equipment Engineering System (COEES) Planning and Mechanized Ordering Modules are the recommended procedures for developing these requirements. However, for planning purposes or if COESS is not available, the following guidelines may be used.

MEMORY

A. No. 1 ESS

Fixed

11.01 The following memory is required whether or not the Interface With Coordinator CRT Terminal feature is used.

(a) ***Base generic program (program store)*** requires 50 words.

(b) ***Parameters (program store)*** memory requires two words (L3CRT and M5SHCE).

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
OP	1	1	1	1	0	1	DOP6				B	D6					D5				D4			

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
OP	1	1	1	1	1	1	T	D3				D2					D1				D0		

NOTE:
THIS MESSAGE IS USED IN TWO FORMATS. ONE FORMAT INFORMS THE AEMIS THAT A BASE NIGHT DIRECTORY NUMBER HAS BEEN RESTORED. THE OTHER FORMAT INFORMS THE AEMIS THAT THE CUSTOMER HAS CHANGED THE DIRECTION OF HIS NIGHT TRAFFIC FRDM THE BASE NIGHT DIRECTORY NUMBER TO A GIVEN REMOTE NIGHT DIRECTORY NUMBER. IN THE LATTER CASE, THE MESSAGES WHICH CONTAIN THE AFFECTED BASE NIGHT DIRECTORY NUMBER, THE NEWLY ESTABLISHED REMOTE NIGHT DIRECTORY NUMBER, AND AN AREA CODE FOR THE REMOTE NIGHT DIRECTORY NUMBER, IF NEEDED, WILL BE BRACKETED.

LEGEND:
B(IT) 0 = RESTORE BASE NIGHT DIRECTORY NUMBER
1 = ACTIVATED REMOTE NIGHT DIRECTORY NUMBER
IF B(IT) = 1;
T(YPE)0 = BASE NIGHT DIRECTORY NUMBER AFFECTED
1 = REMOTE NIGHT DIRECTORY NUMBER ACTIVATED
D6-D0 = ESS BCD ENCODING OF SPECIFIED BASE NIGHT DIRECTORY NUMBER

(c) RESTORED BASE NIGHT DIRECTORY NUMBER OR ACTIVATED REMOTE NIGHT DIRECTORY NUMBER

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
OP	1	SOP22																			LCP NO.		

(d) CURRENT LCP

Fig. 13—AEMIS Data Link Message Formats (ESS to AEMIS) (Sheet 2 of 2)

Conditional

11.02 The ***optionally loadable feature group (program store)*** memory required when the Interface With Coordinator CRT Terminal feature is activated is approximately 24,000 words. The ACD2 feature group requires approximately 12,900 words loaded and 1,050 words of patch space. The IRES feature group requires approximately 4,500 words loaded and 300 words patch space. The DLIO feature group requires 5,050 words loaded and 200 words of patch space. These feature groups are shared with other features.

11.03 The following ***call store*** memory is required when the Interface With Coordinator CRT Terminal feature is activated.

(a) Each CRTOR requires 18 words with the 1E4/1AE4 generic programs. Effective with 1E5/1AE5, each CRTOR requires 19 words. The quantity of CRTOR is defined by the combined values of set cards DLTYP2 and DLTYP3.

(b) Each data link group, defined by set cards DLTYP2 and DLTYP3, requires an 8-word buffer area.

(c) Each queue with customer changeable inflow triggers requires a 16-word SHC. The quantity of SHCs is defined by set card QTLSHC.

(d) References C(2) and C(4) in Part 18 provide details for set card engineering.

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
OP	1	SOP23							FUNCTIONAL GROUP NUMBER					AGENT NUMBER									

(e) AGENT(S) FUNCTIONAL GROUP ASSIGNMENT CHANGED

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
OP	1	1	1	1	0	1	DOP8							AGENT NUMBER 1									
OP	1	1	1	1	1	1		FUNCTIONAL GROUP NUMBER						AGENT NUMBER 2									

LEGEND:
AGENT NUMBER 1 - THE LOW-NUMBERED AGENT OF THE RANGE AND
AGENT NUMBER 2 - THE HIGH-NUMBERED AGENT OF THE RANGE

(f) RANGE OF AGENTS FUNCTIONAL GROUP ASSIGNMENT CHANGED

23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0
OP	1	SOP18											B	PARAMETER									

WHERE:
B(IT) 0 = RESTORE PROGRAM STORE QUEUE THRESHOLDS FOR QUEUE NUMBER IN PARAMETER FIELD
1 = REQUEST CALL STORE CONFIGURATION TO OBTAIN THE PROPER AGENT TO FUNCTIONAL GROUP CONFIGURATION. THE LCP IN WHICH AN ERROR WAS DETECTED WILL BE CONTAINED IN THE PARAMETER FIELD

(q) AUDIT CORRECTION

Fig. 13—AEMIS Data Link Message Formats (ESS to AEMIS) (Sheet 3 of 3)

Variable

11.04 The ***translations (program store)*** memory required when the coordinator CRT terminal is provided on a centrex group basis are as follows:

- One word (shared) in the LEN auxiliary block.
- Five words in the UTYP55 auxiliary block.
- Five words in the data link group translator (minimum). One additional word is required for each added data link circuit.

B. No. 1A ESS

Fixed

11.05 The following memory is required whether or not the Interface With Coordinator CRT Terminal feature is used:

(a) ***Base generic program (program store, file store)*** memory requires 65 words.

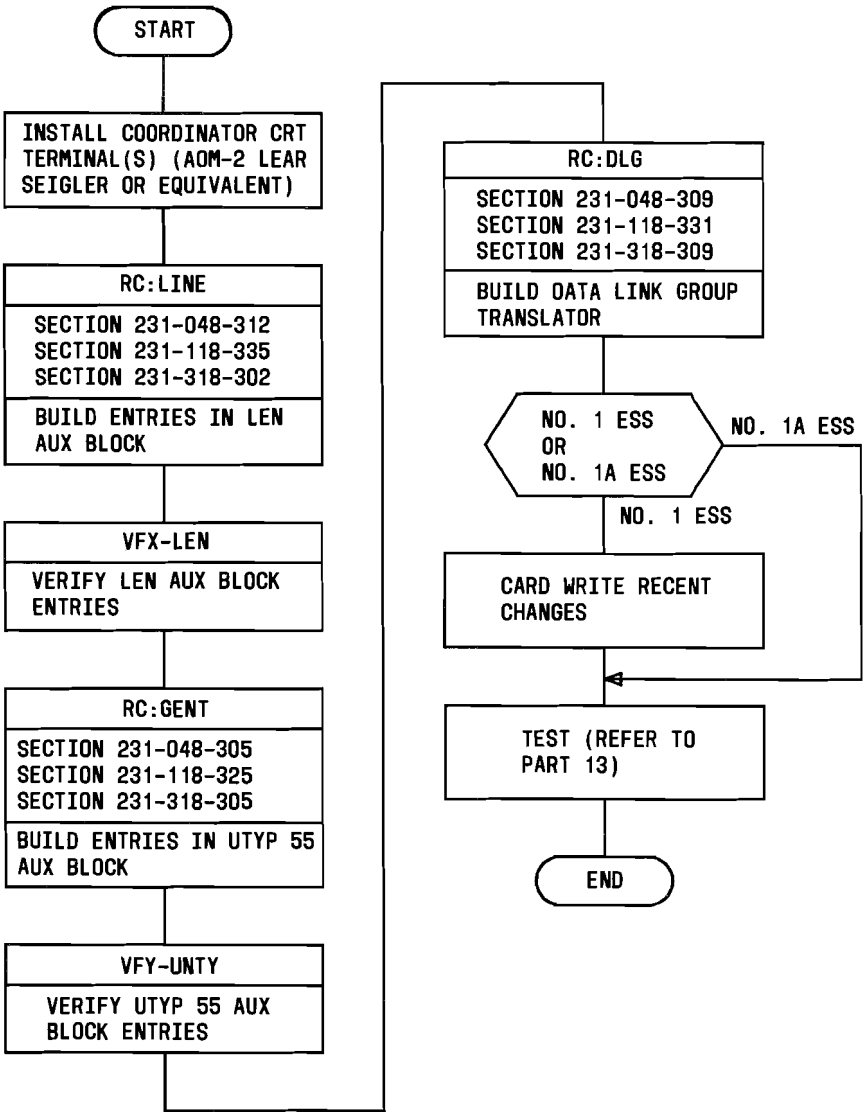


Fig. 14—Procedure for Adding the Coordinator CRT Terminal

(b) The parameters ***(unduplicated call store, file store)*** memory required, whether or not the feature is used, is 4 words (L3CRT and M5SCHE).

Conditional

11.06 The ***optionally loadable feature group (program store, file store)*** memory required when the Interface With Coordinator CRT Terminal feature is activated is approximately 28,100 words. The ACD2 feature group requires approximately 16,100 words. The DLIO feature group requires approximately 6,300 words. The IRES feature group requires approximately 5,700 words. These words are shared with other features.

11.07 The ***duplicated call store*** memory required when the Interface With Coordinator CRT Terminal feature is activated is the same as the No. 1 ESS call store described in paragraph 11.03. Refer to C(3) and C(5) in Part 18 for set card engineering.

TABLE M

PROCESSOR TIME FOR COORDINATOR CRT TERMINAL CONTROL FUNCTIONS

FUNCTION	CYCLES	
	NO. 1 ESS	NO. 1A ESS
Display peg count	4,112	8,224
Display current functional group pattern	2,962	5,924
Display functional group of agent	5,617	11,234
Display agent(s) in functional group that are not normally assigned to it	12,360	24,720
Display agent(s) in functional group	17,034	34,068
Display night directory number	5,215	10,430
Display inflow threshold	5,558	11,116
Restore night directory number	4,203	8,406
Invoke prestored functional group pattern	10,260	20,520
Move agent(s) to functional group	5,353 (line) 11,799 (group)	10,706 (line) 23,598 (group)
Zero peg counts	3,481	6,962
Change night directory number	6,599	13,198
Chnage inflow threshold	4,519	9,038
Change outflow threshold A	4,514	9,028
Change outflow threshold B	3,527	7,054

Variable

11.08 The translations ***(unduplicated call store, file store)*** memory required for the feature is the same as the No. 1 ESS translations described in paragraph 11.04.

REAL TIME IMPACT

11.09 The real time requirement for the Interface With Coordinator CRT Terminal feature is shown in Table M.

11.10 The cycle time of the No. 1A ESS is 0.7 microsecond. The cycle times for the No. 1 ESS is as follows: 5.5 microseconds (0 percent speedup) and 5.0 microseconds (10 percent speedup). Clock speedups are available with the 1E7 and base restarts of the 1E6 generic programs.

12. DATA ASSIGNMENTS AND RECORDS

TRANSLATION FORMS

12.01 The following ESS translation forms are affected by the Interface With Coordinator CRT Terminal feature. Reference C(1) in Part 18 provides details.

(a) ***ESS Form 1101—Directory Number Record:*** This form assigns line translations for the coordinator CRT terminal as well as the queue listed directory number for each split.

(b) ***ESS Form 1106—Multiline Group Index:*** This form is used to summarize the assigned multiline group (MLG) in the central office. This form maintains a summary of MLG number, listed directory number, and customer name.

(c) ***ESS Form 1107—Supplementary Information Records:*** This form records the data link group (DLG) number.

Note: Effective with 1E7/1AE7, the revised ESS 1107A form is standard for assigning features and options. Some of these assignments were previously contained on the ESS 1101 and/or ESS 1115 forms. For 1E6/1AE6 and earlier, either the old or revised versions of these forms can be used; however, they cannot be mixed.

(d) ***ESS Form 1115—Multiline Group Record:*** This form is used to assign the ACD agents in order to allow functional group assignments and reconfiguration. The terminal numbers of the MLG must be assigned in consecutive order from 001 to 1023. The queue listed directory number is entered on this form.

(e) ***ESS 1506—Miscellaneous Assignment Information Record:*** This form records the data link group number.

(f) ***ESS Form 1511—AQTL Group Record:*** This form provides information for MLG queueing.

(g) ***ESS Form 1514—Data Link Group Record:*** This form provides information to build the data link group translator.

RECENT CHANGES

12.02 The following recent change (RC) messages are applicable to the Interface With Coordinator CRT Terminal feature.

RC MESSAGE	FUNCTION
RC:CTXCB	This message builds centrex common block data including data display RI via keyword DDRI. Reference A(4), A(17), or A(22) in Part 18 provides details.
RC:DLG	This message builds the data link group translator to identify the data link numbers contained in the group and to specify the type and usage of each. Reference A(4), A(17), or A(22) in Part 18 provides details.
RC:GENT	This message builds and links the QTL unit type 55 auxiliary block using keyword UT55. Reference A(2), A(16), or A(21) in Part 18 provides details.
RC:LINE	This message builds line translations for the coordinator CRT terminal using keyword ACD. Reference A(3), A(18), or A(19) provides details.
RC:MLHG	This message provides the MLG feature for an ACD2 customer. The following keywords are affected by the Interface With Coordinator CRT Terminal feature: DLG and IPEG (incoming peg count). Reference A(3), A(18), or A(19) in Part 18 provides details.

13. TESTING

13.01 The TTY input and output messages described in Part 18B may be used to verify translation. The following messages are applicable.

(a) Use VFY-TKGN to verify the trunk group number translations. System response will be a TR10 output message.

(b) Use VFY-TNN to verify the trunk network number translations. System response will be a TR14 output message.

(c) Use VFY-EXP to verify the route index. System response will be a TR05 output message.

(d) Use VFY-CSTG-34 to verify the common block for a MLG. System response will be a TR15 output message.

(e) Use VFY-DN to verify one or a group of directory numbers. System response will be a TR01 output message.

(f) Use VFY-LEN to verify features associated with a line. System response will be a TR03 output message.

13.02 The coordinator CRT terminal (when connected to the 60B CPS cabinet) may be tested

by trying each of the commands provided to the ACD customer (Table B) and verifying the output on the CRT terminal.

13.03 The coordinator CRT terminal (when connected to the minicomputer) may be tested by trying each of the commands provided to the ACD customer (Tables F through L) and verifying the display on the CRT terminal.

14. OTHER PLANNING TOPICS

14.01 Not applicable.

ADMINISTRATION

15. MEASUREMENTS

15.01 Not applicable.

16. CHARGING

16.01 Not applicable.

SUPPLEMENTARY INFORMATION

17. GLOSSARY

17.01 The following terms are defined as applicable to the Interface With Coordinator CRT Terminal feature.

Functional Group (split) is a grouping of agents assigned to handle one particular type of call.

Interflow is the redirecting of calls to other customer facilities (queues or agents) located in a different ACD system (either in the same or different central office).

Intraflow is the redirecting of calls to other customer facilities (queues or agents) located in the same ACD system (within the same central office).

Load Compensating Packages are predetermined agent position configurations that can be activated via the CRT/keyboard to accommodate changes in the volume of incoming ACD traffic due to lunch hours, holidays, weekends, etc.

Queueing for Trunks and Line queue is a block of call store that temporarily stores and keeps track of the order of arrival of incoming ACD calls until they can be serviced by an agent.

18. REFERENCES

18.01 The following documentation contains information related to or affected by the Interface With Coordinator CRT Terminal feature.

A. Bell System Practices

(1) Section 231-048-303—CCIS, CFTRK, TG, TGBVT, TGMEM, TKCONV, and TRK Trunk Recent Change Formats (1E6/1AE6 and 1E7/1AE7 Generic Programs)—2-Wire No. 1 and No. 1A Electronic Switching Systems

(2) Section 231-048-305—GENT, PSBLK, PSWD, and SUBTRAN Recent Change Formats (1E6/1AE6 and 1E7/1AE7 Generic Programs)—2-Wire No. 1 and No. 1A Electronic Switching Systems

(3) Section 231-048-312—ACT, CFV, LINE MOVE, MPTY, OBS, SCLIST, SIMFAC, TWOPTY, and VSS, Line Recent Change Formats (1E6/1AE6 and 1E7/1AE7 Generic Programs)—2-Wire No. 1 and No. 1A Electronic Switching Systems

(4) Section 231-048-309—CTXCB, CTXDI, CTXEXR, CXDICH, DITABS, DLG, FLXDG, FLXRD, and FLXRS, Centrex-CO/ESSX-1 Recent Change Formats (1E6/1AE6 and 1E7/1AE7 Generic Programs)—2-Wire No. 1 and No. 1A Electronic Switching Systems

(5) Section 231-061-450—Program Store, Network Design—No. 1 Electronic Switching System

(6) Section 231-061-460—Call Store, Network Design—No. 1 Electronic Switching System

(7) Section 231-062-465—Processor Community Engineering, Duplicated Call Store, Network Design—No. 1A Electronic Switching System

(8) Section 231-062-470—Processor Community Engineering, Unduplicated Call Store, Network Design—No. 1A Electronic Switching System

(9) Section 231-062-475—Processor Community Engineering, File Stores, Network Design—No. 1A Electronic Switching System

(10) Section 231-090-074—Feature Document—Call Forwarding Variable Feature—2-Wire No. 1 and No. 1A Electronic Switching Systems

(11) Section 231-090-336—Feature Document—ACD Multiline Group Hunt Feature—2-Wire No. 1 and No. 1A Electronic Switching Systems

(12) Section 231-090-399—Feature Document—Automatic Call Distribution Feature Phase 2 Description—2-Wire No. 1 and No. 1A Electronic Switching Systems

(13) Section 231-090-339—Feature Document—ACD Queueing and Call Distribution to Agents Feature—2-Wire No. 1 and No. 1A Electronic Switching Systems

(14) Section 231-090-412—Feature Document—Basic Data Link Input/Output Control Feature—2-Wire No. 1 and No. 1A Electronic Switching Systems

(15) Section 231-118-323—Trunk Translation Recent Change Procedures for TG, TGBVT, TRK, CFTRK, and TGMEM (Through 1E5 Generic Programs)—2-Wire No. 1 Electronic Switching System

(16) Section 231-118-325—RC Procedures for PSWD, GENT, PSBLK, SUBTRAN (Through 1E5 Generic Program)—2-Wire No. 1 Electronic Switching System

(17) Section 231-118-331—Centrex-CO/ESSX-1 Recent Change Procedures for CTXCB, CTXDI, CTXEXR, CXDICH, DITABS, DLG, FLXDG, FLXRD, and FLXRS (Through 1E5 Generic Program)—2-Wire No. 1 Electronic Switching System

(18) Section 231-118-335—Line Recent Change Procedures for LINE, TWOPTY, MPTY, SCLIST, MLHG, ACT, CFV, OBS, and SIMFAC (Through 1E5 Generic Program)—2-Wire No. 1 Electronic Switching System

(19) Section 231-318-302—Line Recent Change Procedures for LINE, TWOPTY, MPTY, SCLIST, MLHG, ACT, CFV, and SIMFAC (Through 1AE5 Generic Program)—2-Wire No. 1A Electronic Switching System

(20) Section 231-318-303—Trunk Translation Recent Change Procedures for TG, TGBVT, TRK, CFTRK, and TGMEM (Through 1AE5 Generic Program)—2-Wire No. 1A Electronic Switching System

(21) Section 231-318-305—RC Procedures for PSWD, PSBLK, SUBTRAN, and GENT (Through 1AE5 Generic Program)—2-Wire No. 1A Electronic Switching System

(22) Section 231-318-309—Centrex-CO/ESSX-1 Recent Change Procedures for CTXCB, CTXDI, CTXEXR, CXDICH, DITABS, DLG, FLXDG, FLXRD, and FLXRS (Through 1AE5 Generic Program)—2-Wire No. 1A Electronic Switching System

(23) Section 999-500-118—AEMIS Attendant Group Supervisor CRT Terminal Manual

(24) Section 999-500-119—AEMIS Functional Group Supervisor and ACD Supervisor Manual.

B. TTY Input and Output Manuals

(1) Input Message Manual IM-1A001—2-Wire No. 1 Electronic Switching System

(2) Output Message Manual OM-1A001—2-Wire No. 1 Electronic Switching System

(3) Input Message Manual IM-6A001—2-Wire No. 1A Electronic Switching System

(4) Output Message Manual OM-6A001—2-Wire No. 1A Electronic Switching System.

C. Other Documentation

(1) Translation Guide TG-1A—No. 1 and No. 1A Electronic Switching Systems—2-Wire

(2) Office Parameter Specification PA-591001—No. 1 Electronic Switching System—2-Wire

(3) Office Parameter Specification PA-6A001—No. 1A Electronic Switching System

(4) Parameter Guide PG-1—No. 1 Electronic Switching System—2-Wire

(5) Parameter Guide PG-1A—No. 1A Electronic Switching System—2-Wire

(6) Translation Output Configuration PA-591003—No. 1 Electronic Switching System—2-Wire

(7) Translation Output Configuration PA-6A002—No. 1A Electronic Switching System—2-Wire

(8) BISP 759-100-000—Subject Index—Central Office Equipment Engineering System (COEES)

(9) BISP 759-100-100—General Description—Central Office Equipment Engineering System (COEES).