

**2200A DATA CONTROL UNIT
(NETWORK CONTROLLER)
INSTALLATION AND CONNECTIONS
"DATAPHONE®" II SERVICE**

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1. GENERAL

- 1.01 This section contains the information needed to install and connect the DATAPHONE® II service 2200A-L1 data control unit (DCU) shown in Fig. 1.
- 1.02 Whenever this section is reissued, the reason for reissue will be contained in this paragraph.
- 1.03 The 2200A-L1 DCU, hereafter referred to as the network controller (NC), can be mounted in a customer or Bell System provided rack or cabinet with 19- or 23-inch mounting. A Bell System provided KS-20018-type cabinet with multiple data set mountings is shown in Fig. 2.
- 1.04 The NC operates over an ambient temperature range of +40 to +120°F and a relative humidity of 5 to 95 percent noncondensing.

- 1.05 The NC requires a power source that provides 105 to 129 volts, up to 200 watts, at 57 to 63 Hz. The customer must supply a power outlet that will accept the 3-prong ac power plug. A KS-14532,L24 power cord is provided with each NC.
- 1.06 The NC may be connected to, and used in conjunction with, other NCs or a 2100A-L1 DCU, referred to as diagnostic console (DC). The NC and DC are referred to jointly as diagnostic control devices (DCDs).

Note: Paragraphs 1.07 through 1.16 describe the various physical connections to the NC. Refer to Part 3, CONNECTIONS for illustrations of the recommended connections.

- 1.07 Connection to the first DATAPHONE II service data set (either stand alone or multiple mounting) or another DCD in the control channel network is made from the NC control channel-out (CC-OUT) connector (Table A, Fig. 3) via a 10-pin M9G cord.
- 1.08 Connection to the first remotely located data set mounting or another DCD in the control channel network is made from the NC CC-OUT connector (Fig. 3) via a 10- to 25-pin M4BB cord and a data set (DS) 212AR. At the remotely located site, connection is made to the data mounting or another DCD via a DS 212AR and a 25- to 10-pin M4BA cord.
- 1.09 Connections to a DC or another NC is made from the NC control channel-in (CC-IN) connector (Table B, Fig. 3) via a 10-pin M9G cord.
- 1.10 Connection to a remotely located NC or DCD is made from the NC network (NET)

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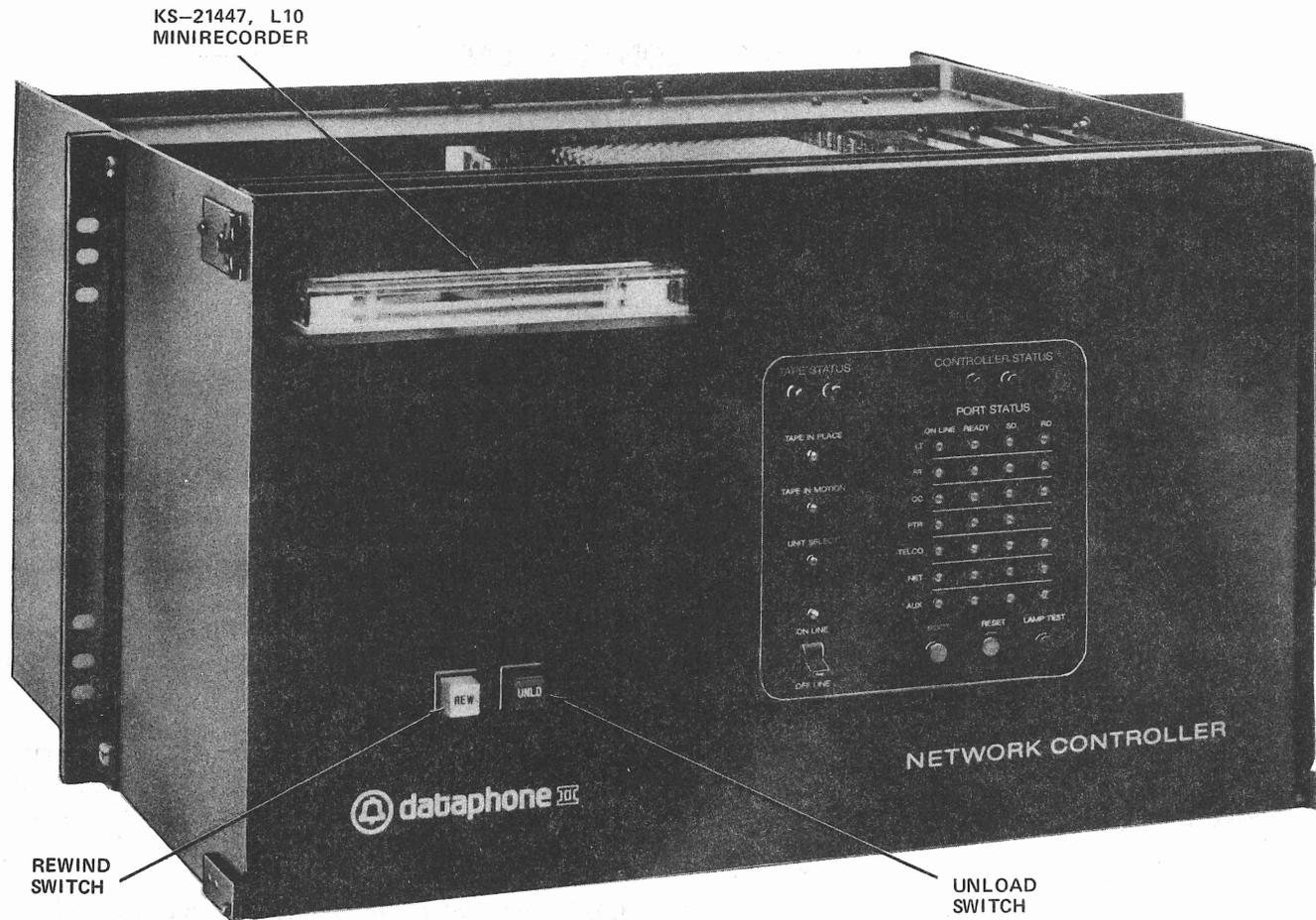


Fig. 1—2200A-L1 Data Control Unit

connector (Table C, Fig. 3) via a 25-pin M25A cord and a DS 212AR (for 2-wire switched network facilities) or a DS 202T (for 4-wire private line facilities).

1.11 Connection to a remotely located telephone company (telco) location is made from the NC telco connector (Table C, Fig. 3) via a 25-pin M25A cord and a DS 212AR (for 2-wire switched network facilities) or a DS 202T (for 4-wire private line facilities), connected to a DATASPEED® 40/2 terminal. The same connection arrangement can be made to a remotely located customer NC.

1.12 The REMOTE TERMINAL (RT) connector (Table C, Fig. 3) provides a remote terminal access to the NC and the associated network via a 25-pin M25A cord and a DS 212AR (for 2-wire switched network facilities) or a DS 202T (for

4-wire private line facilities), connected to a DATASPEED 40/2 terminal.

1.13 The LOCAL TERMINAL (LT) (Table D, Fig. 3) provides local access for the DATASPEED 40/2 terminal (or equivalent). A KS-21253,L7 adapter is provided with each NC and used to connect the RS-449 interface with RS-232-C interface on the data terminal equipment (DTE). An M25A cord is also needed.

1.14 The printer (PTR) (Table D, Fig. 3) allows a Model 43 teleprinter (or equivalent) receive-only printer to be attached to the network controller for operation at 300 bps. A 37 to 25-pin adapter KS-21253,L7 is provided with each NC and is used to connect the RS-449 interface with RS-232-C interface on the DTE. An M25A cord is also needed.

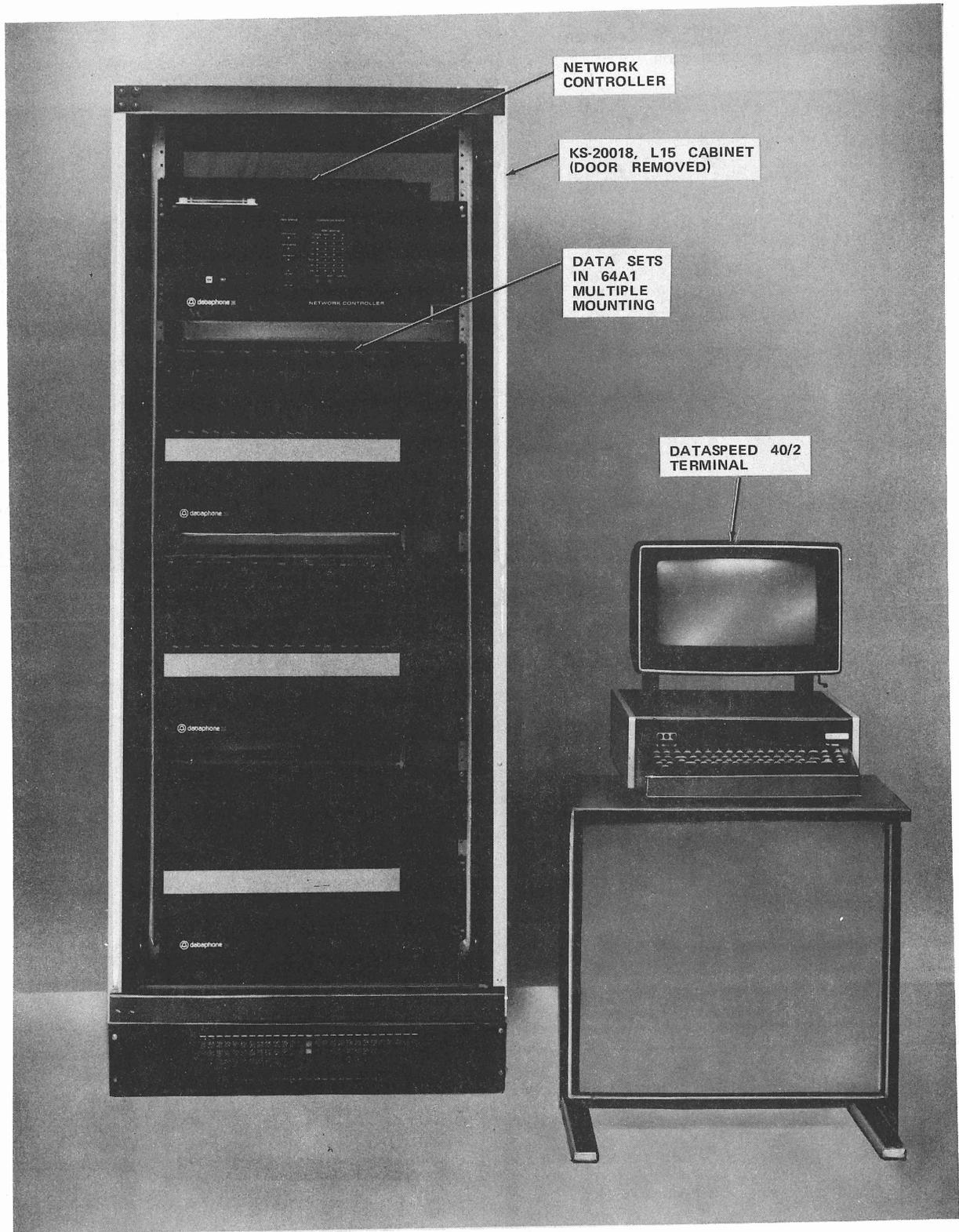


Fig. 2—Network Controller Installed in a 23-Inch Rack (Front Door Removed)

SECTION 592-102-200

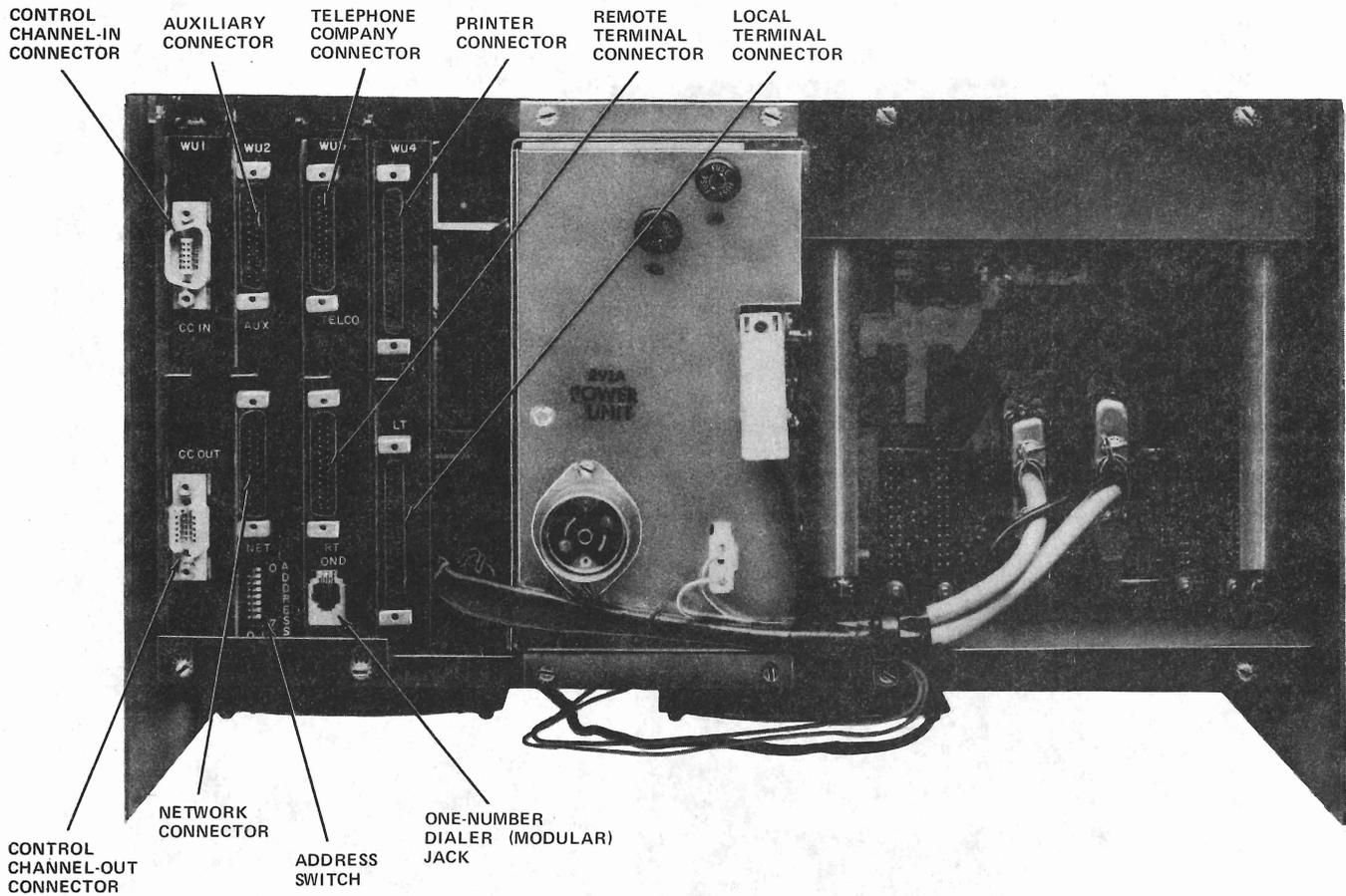


Fig. 3—Network Controller Rear View

TABLE A

LOCAL CONTROL CHANNEL-OUT (CC-OUT)

PIN NO.	LEAD DESIGNATION	LEAD NAME
1	FG	Fixed Ground
3	SDO	Send Data Out
4	RDO	Receive Data Out
5	SG	Signal Ground
6	RCO	Receive Common Out
7	RSO	Request-to-Send Out
8	CSO	Clear-to-Send Out
9	SCO	Send Common Out

TABLE B

LOCAL CONTROL CHANNEL-IN (CC-IN)

PIN NO.	LEAD DESIGNATION	LEAD NAME
3	SDI	Send Data In
4	RDI	Receive Data In
5	SG	Signal Ground
6	RCI	Receive Common In
7	RSI	Request-to-Send In
8	CSI	Clear-to-Send In
9	SCI	Send Common In

TABLE C
NETWORK (NET), REMOTE TERMINAL (RT),
TELCO, AND AUX CONNECTOR

PIN NO.	FUNCTION	LEAD DESIGNATION RS-232-C
1	Protective Ground	AA
2	Transmitted Data	BA
3	Received Data	BB
4	Request-to-Send	CA
5	Clear-to-Send	CB
6	Data Set Ready	CC
7	Signal Ground	AB
8	Received Line Signal Detector	CF
12	Data Signal Rate Selector (DCE Source)	CI*
14	Auxiliary Rec'd Line Sig. Detector	ACF*
18		CN*
20	Data Terminal Ready	CD
21	Remote Digital Loopback	RL*
22	Ring Indicator	CE
23	Data Signal Rate Selector (DTE Source)	CH
25		TN*

*Non-EIA RS-232-C lead.

1.15 The one-number dialer (OND) (modular jack) terminal (Fig. 3) provides the control leads for activating the OND via a M4AS cord through a 325A adapter used in conjunction with the optional automatic trouble reporting feature.



When the NC is installed in cabinets with a diagnostic console or data sets, start the mounting from the top of the cabinet towards the bottom to avoid static discharge.

2. INSTALLATION

2.01 It is desirable to mount the NC in such a way as to allow visual monitoring and convenient operation of the front panel. When rack-mounting the NC, the NC must be installed in a controlled environment with filtered air.

2.02 The NC should be placed at least 30 inches above the floor in a dust-free environment for trouble-free operation of the tape drive unit and cartridge.

2.03 The NC comes with factory-mounted brackets to fit in a 19-inch relay rack. The right side bracket can be rearranged to fit a 23-inch relay rack by removing the right side bracket, rotating it and fastening it on the NC mounting,

TABLE D

LOCAL TERMINAL (LT) AND PRINTER (PTR) PORT CONNECTORS

RS-449			APPLIES TO:	
PIN NO.	MNEMONIC	NAME	LT CONNECTOR	PRT CONNECTOR
4, 22	SD	Send Data	✓	
6	RD	Receive Data	✓	✓
9	CS	Clear-to-Send	✓	✓
11	DM	Data Mode	✓	✓
12, 30	TR	Terminal Ready	✓	✓
13	RR	Receiver Ready	✓	✓
19	SG	Signal Ground	✓	✓
20	RC	Receive Common	✓	
37	SC	Send Common	✓	✓

with the short side of the mounting bracket against the NC mounting.

2.04 In addition to the standard installation tools, installation of the NC may require the following additional tools:

- 12-inch screwdriver
- A screw starter, Kedman Co. No. 1736, or equivalent.

2.05 For a one-person installation perform the following:

- For 23-inch mounting space, insert the furnished 12-24 by 1/2 inch long screws 3 1/2 inches from the bottom of the mounting.
- For the 19-inch mounting space, insert the furnished 12-24 by 1/2 inch long screws 4 3/4 inches from the bottom of the mounting.
- Hook the NC mounting onto these starter screws and then insert the remaining mounting screws in position using the screw starter and making minor position changes if necessary.

2.06 Slide the 291A power unit into the NC frame from the rear and attach to the NC frame

by adjusting the four screws furnished with the NC.

2.07 Connect the plug marked P1 from the NC to the connector marked J3 on the back of the power unit.

2.08 Connect the plug marked P2 from the NC fan assembly to the connector marked OUTPUT 117 Vac on the back of the power unit.

2.09 Connect the KS-14532,L24 power cord (provided)) to the power connector on the back of the 291A power unit.

2.10 Set the NC address specified as diagnostic apparatus address (DAA) on the service order using the dual in-line package (DIP) address switch located on the WU2 circuit pack (Fig. 3). The procedure for setting the NC address switch is shown in Fig. 4.

2.11 Set the S1 switch on the WU4 circuit pack with the rocker down on the side opposite the white dot (1200 bps). Refer to Fig. 5 for the location of the S1 switch on the WU4 circuit pack.

2.12 Plug in the M9G cord from the data set mounting or DCD into the CC-OUT connector on the WU1 circuit pack. This connection is made

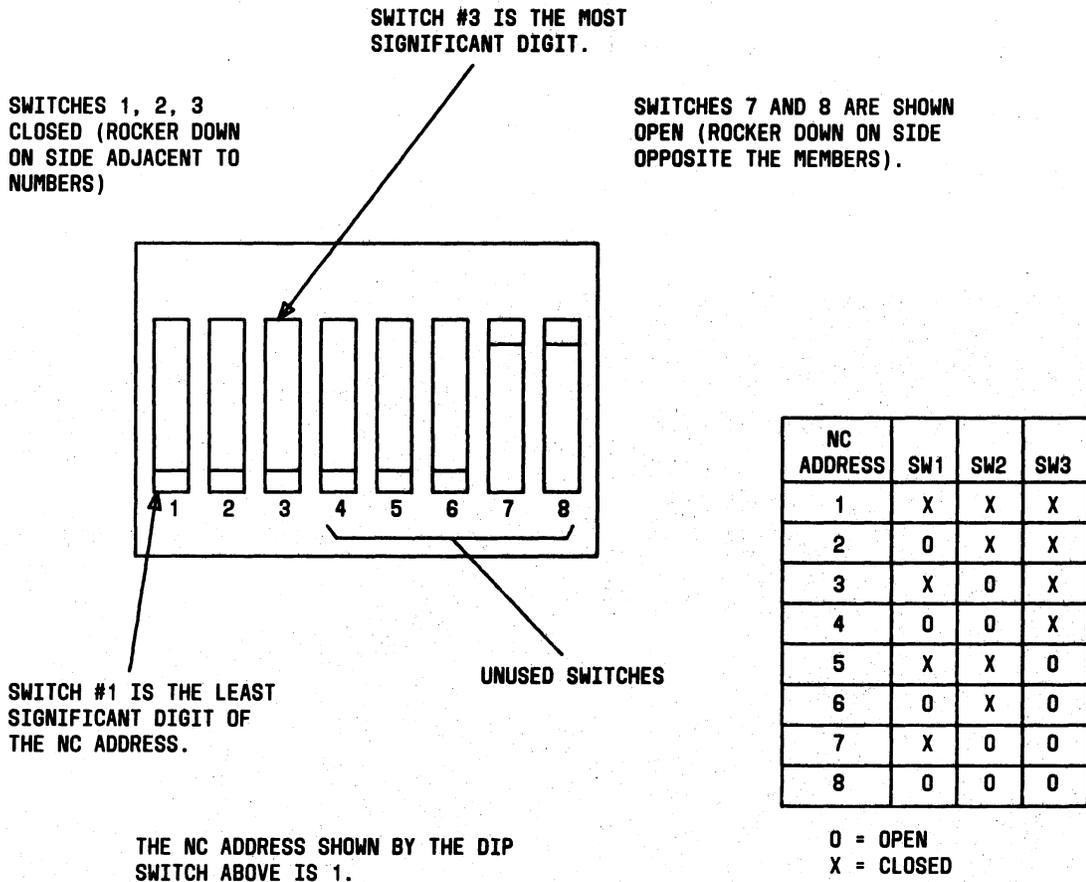


Fig. 4—Network Controller Address Switch and Setting

per station equipment configuration (Fig. 6 through Fig. 12).

2.13 Install and power-up the DATASPEED 40/2 terminal (or equivalent). Refer to Section 582-200-202 for the installation of the DATASPEED 40/2 terminal.

2.14 Ensure that proper options (per service order) have been installed and the line speed switch is set for 1200 bps on the DATASPEED 40/2 terminal.

2.15 Install and power-up the Model 43 teleprinter or equivalent (optional). Refer to Section 574-500-200 for installation instructions.

2.16 Plug in the M25A cord to the Model 43 teleprinter (or equivalent) and to the printer (PTR) connector located on the WU4 circuit pack using a KS-21253,L7 adapter provided with each NC.

2.17 Plug in the M25A cord to the DATASPEED 40/2 terminal (or equivalent) and to the local terminal (LT) connector located on the WU4 circuit pack using a KS-21253,L7 adapter provided with each NC.

2.18 Connect the NC ac power cord, KS-14532, L24 to a customer provided 3-prong power outlet.

Note: The ac outlet must not be under the control of a switch.

3. CONNECTIONS

3.01 The recommended connections for the various NC installations are shown in Fig. 6 through Fig. 14. The figure numbers and titles of the connection diagrams are given below:

Fig. 6—Connection Diagram for Single NC Without Remote Access

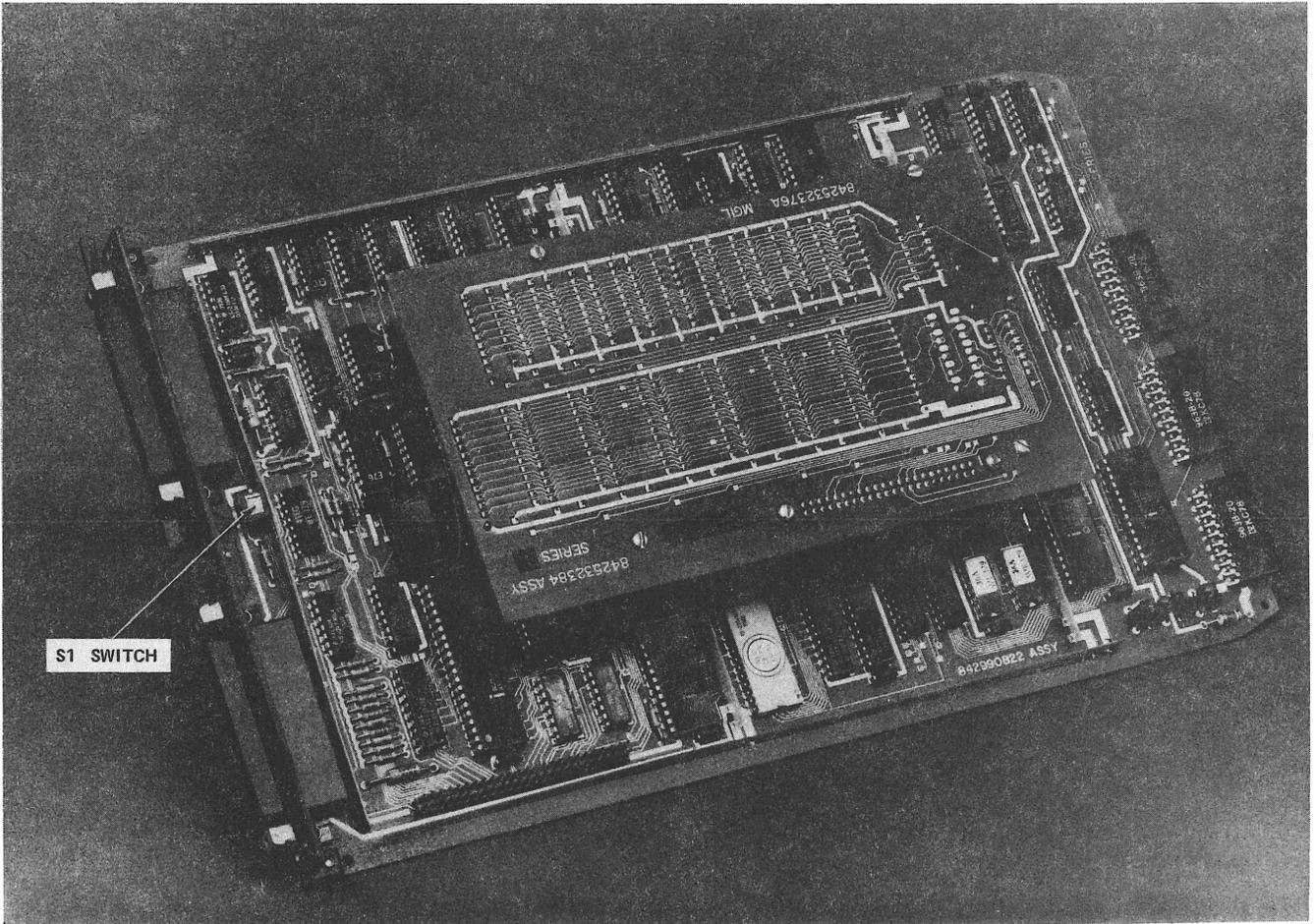
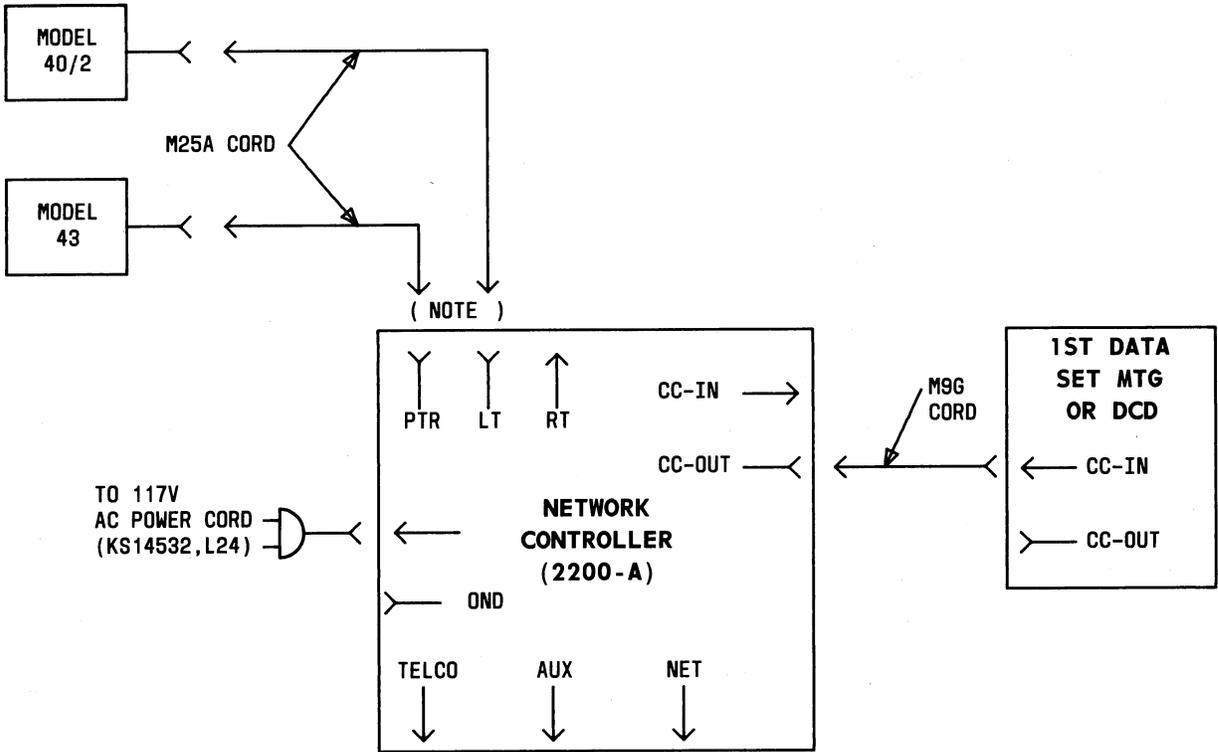


Fig. 5—Location of S1 Switch on the WU4 Circuit Pack



NOTE: A KS21253, L7 ADAPTER IS USED TO CONNECT THE 37 PIN CONNECTOR TO THE 25 PIN CONNECTOR.

Fig. 6—Connection Diagram for Single NC Without Remote Access

Fig. 7—Connection Diagram for NC Colocated With Another DCD Without Remote Access

Fig. 8—Connection Diagram for NC Colocated With Another DCD Without Remote Access (Alternate Method)

Fig. 9—Connection Diagram for NCs With Remote Access via Switched Network Telephone Facilities

Fig. 10—Connection Diagram for NC and DC With Remote Access via Switched Network

Fig. 11—Connection Diagram for NCs With Remote Access via Private Line Telephone Facilities

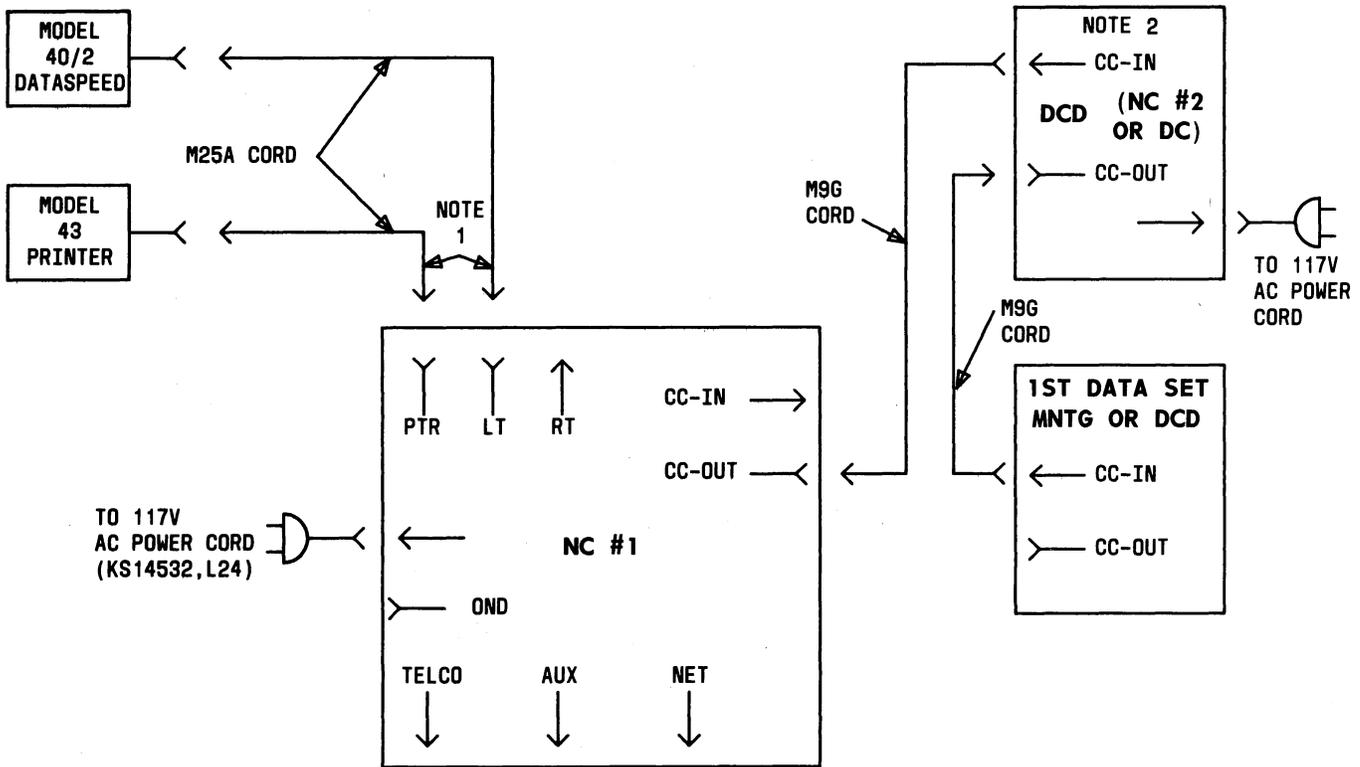
Fig. 12—Connection Diagram for NC and DC With Remote Access via Private Line Telephone Facilities

Fig. 13—Connection Diagram for NC Using Switched Network Telephone Facilities for Control Channel Interface Without Remote Access

Fig. 14—Connection Diagram for NC Using Private Line Telephone Facilities for Control Channel Interface Without Remote Access

4. START-UP PROCEDURE

4.01 The start-up procedure requires operation from the front panel of the NC and from the DATASPEED 40/2 keyboard display terminal



- NOTES:
1. A KS21253, L7 ADAPTER IS USED TO CONNECT THE 37 PIN CONNECTOR TO THE 25 PIN CONNECTOR.
 2. ENSURE THAT EACH DCD HAS A UNIQUE ADDRESS.

Fig. 7—Connection Diagram for NC Colocated With Another DCD Without Remote Access

(or equivalent). The procedure is explained in the following paragraphs.

4.02 Depress the RESET button on the NC and the tape status LEDs (red and green) will come ON and after about 10 seconds the red LED will turn OFF. If the red LED does not turn OFF after about 10 seconds, depress the RESET button. If the red LED stays ON, refer to Section 592-102-500.

4.03 Depress the momentary contact LAMP TEST switch to check all LEDs on the front panel of the NC. All LEDs should turn ON.

4.04 Turn the ON LINE/OFF LINE switch to OFF LINE. Insert the program cartridge (100A data cartridge) into the tape drive unit in the NC. Turn the ON LINE/OFF LINE switch

to ON LINE. The ON LINE and TAPE IN PLACE LED should turn ON.

4.05 While holding the BOOT button depressed, momentarily depress and release the RESET button. Release the BOOT button.

4.06 After about 10 seconds the TAPE STATUS green LED will light and the CONTROLLER STATUS red LED will light.

4.07 After about 40 seconds, the ringer in the DATASPEED 40/2 terminal will ring at 1 second intervals for about 2 minutes, as the cursor moves across the screen. The CONTROLLER STATUS green LED will light and a software release statement will appear on the terminal screen followed by NC identity information.

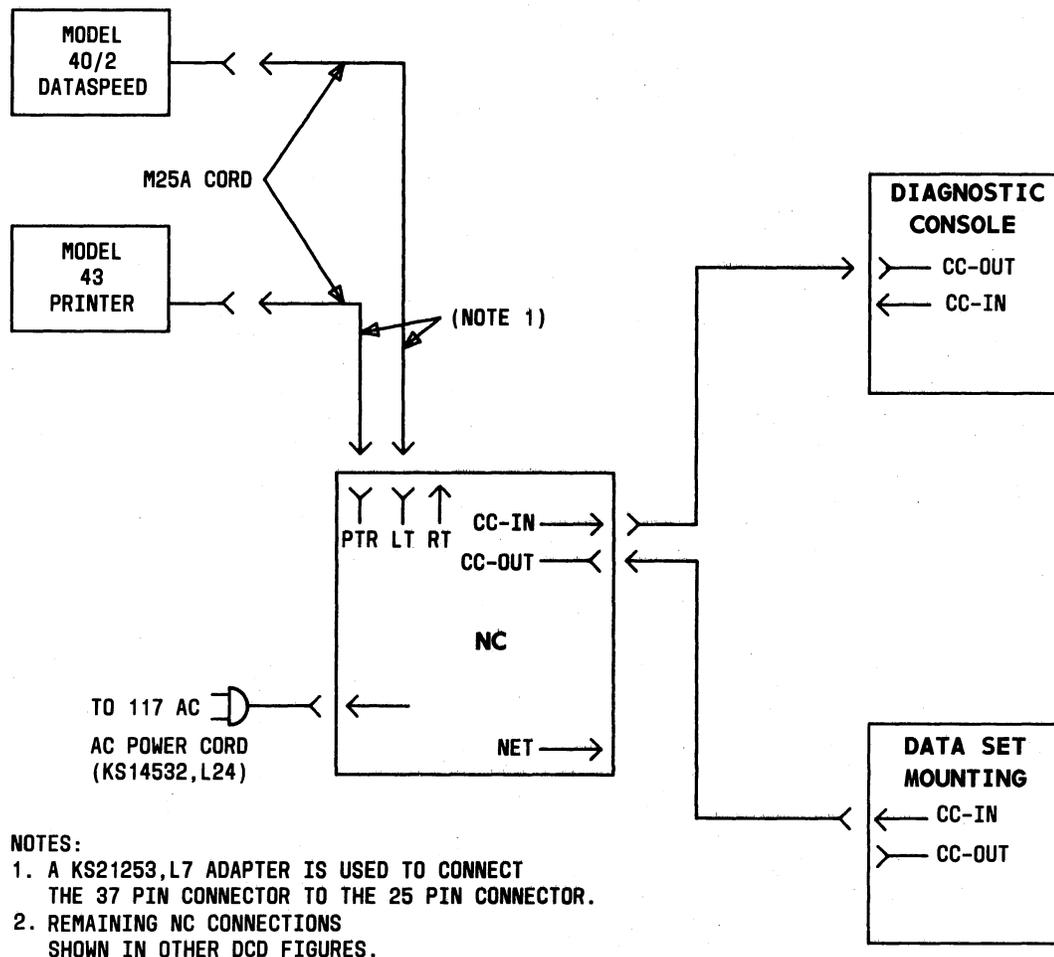


Fig. 8—Connection Diagram for NC Colocated With Another DCD Without Remote Access (Alternate Method)

4.08 Depress NEW LINE key on the DATASPEED 40/2 terminal. A real time fault display will appear followed by **enter selection**. Refer to Fig. 15 for a display of the screen.

Note: Refer to Section 592-102-100 for detailed description of NC operating procedures, NC commands operations, and NC displays described in the following paragraphs.

4.09 Enter **pw;plato;u;** and then depress the NEW LINE key on the DATASPEED 40/2 terminal (each system program 100A data cartridge is shipped from the factory with **plato** as password).

Note: Every time BOOTING is done, the password reverts back to factory installed password **plato**. Refer to 592-102-100 for procedure of BOOTING.

4.10 Enter **chncop;** and depress the NEW LINE key or RETURN key on the DATASPEED 40/2 terminal. The present NC options (if any) will appear on the DATASPEED 40/2 terminal display screen followed by the NC option choices, followed by **enter choice**. Refer to Fig. 16 for a display of the screen.

4.11 Read service order and decode the uniform service order code (USOC). The USOC information is provided in Part 6. Set NC options

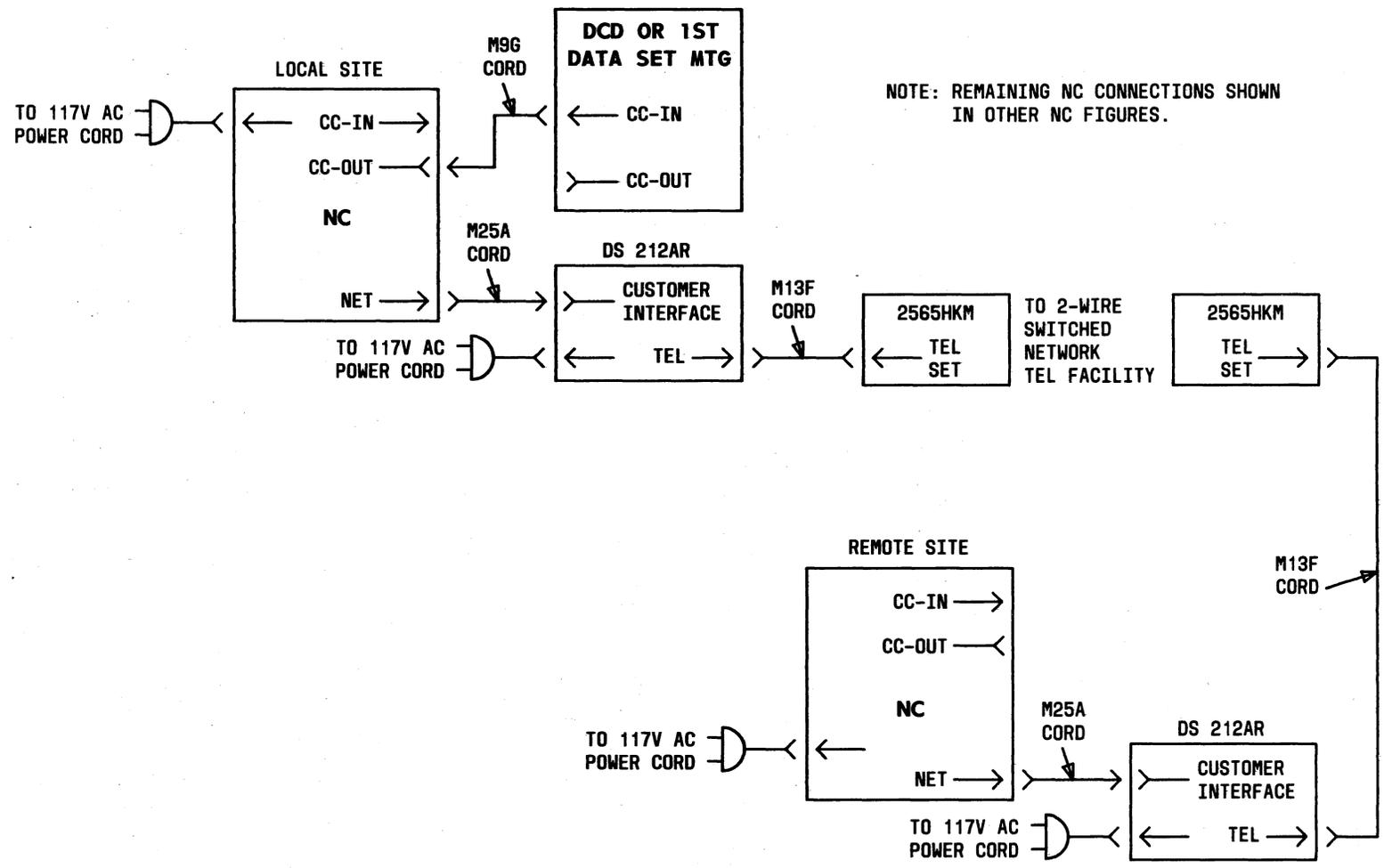


Fig. 9—Connection Diagram for NC With Remote Access Via Switched Network Telephone Facilities

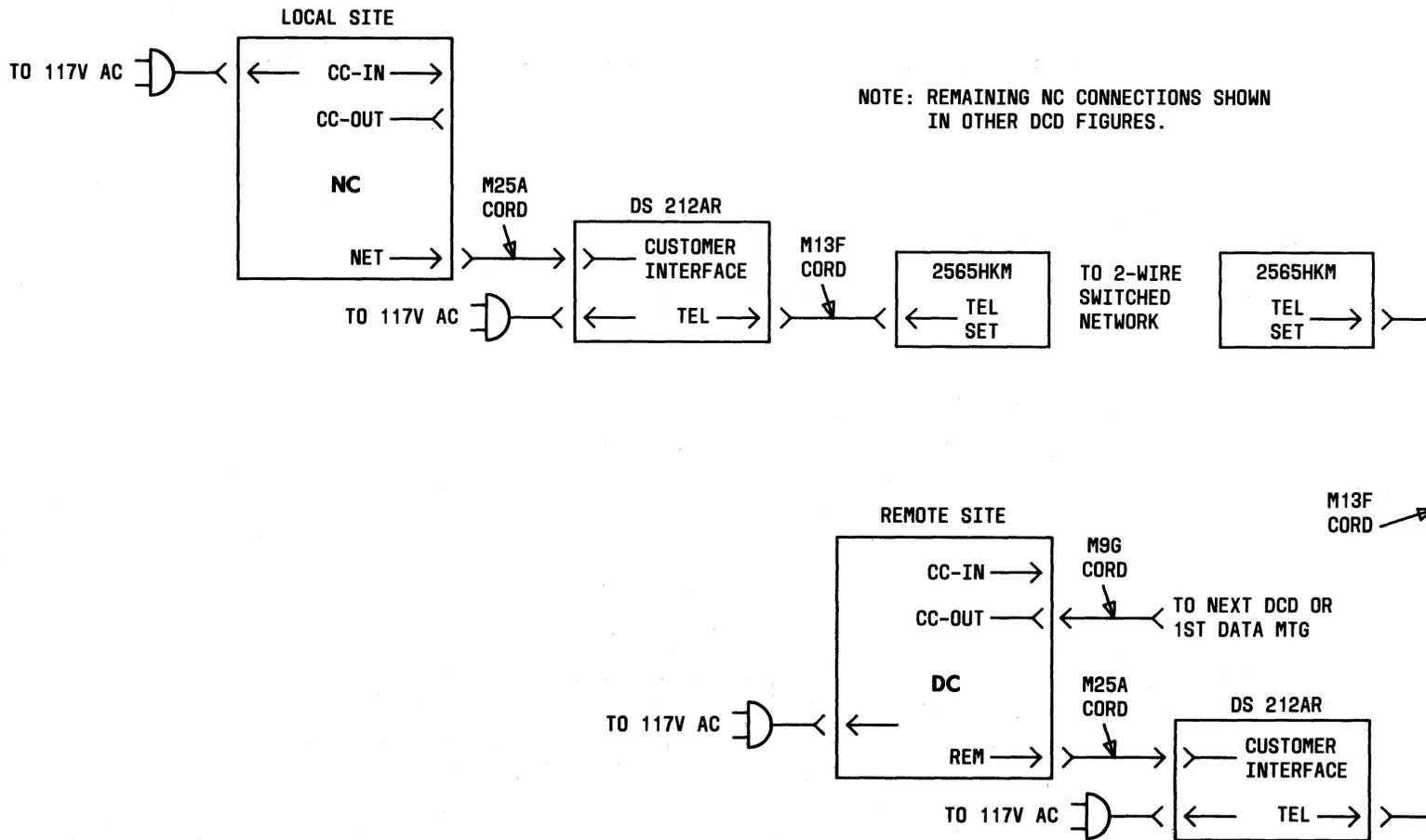


Fig. 10—Connection Diagram for NC and DC With Remote Access Via Switched Network

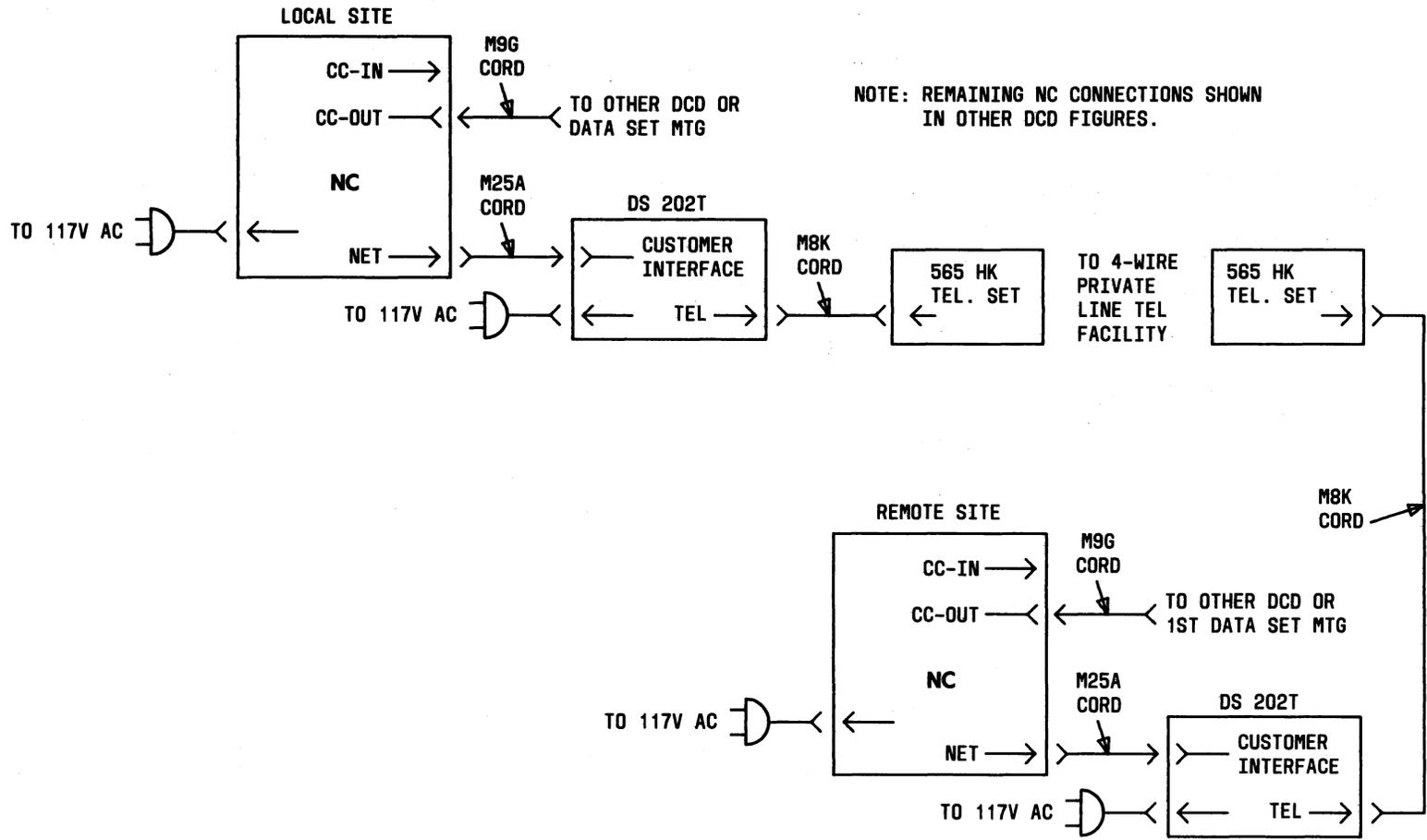


Fig. 11—Connection Diagram for NC With Remote Access Via Private Line Telephone Facilities

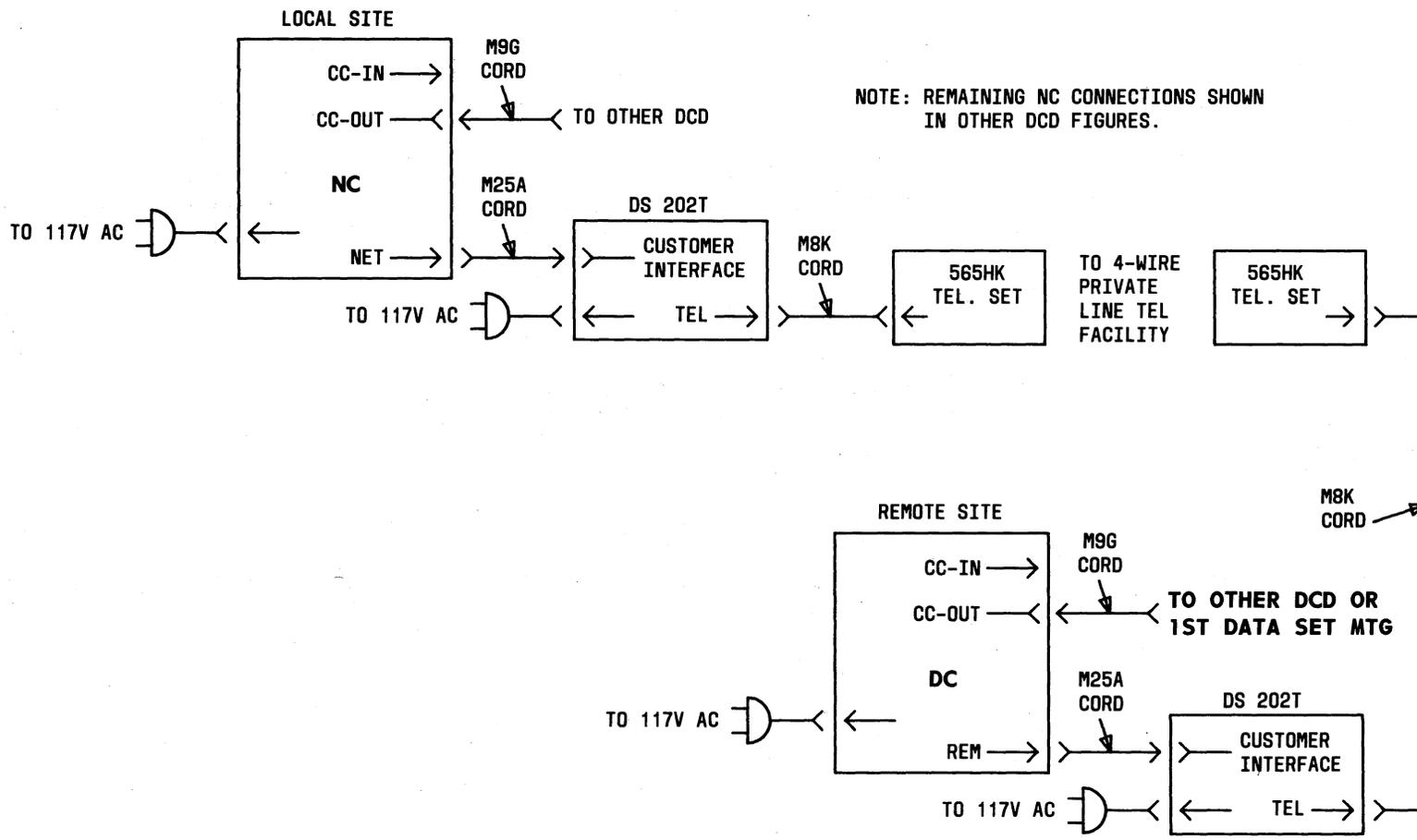


Fig. 12—Connection Diagram for NC and DC With Remote Access Via Private Line Telephone Facilities

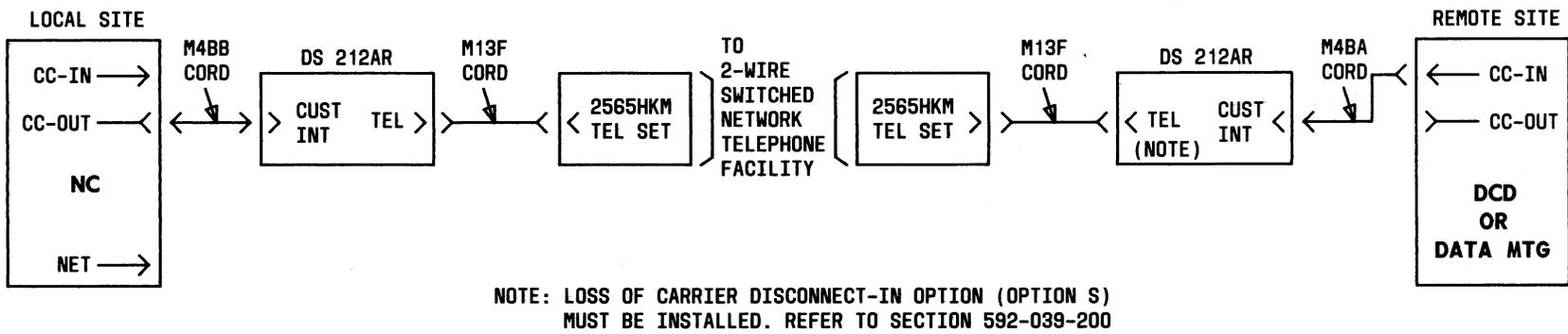


Fig. 13—Connection Diagram for NC Using Switched Network Telephone Facilities for Control Channel Interface Without Remote Access

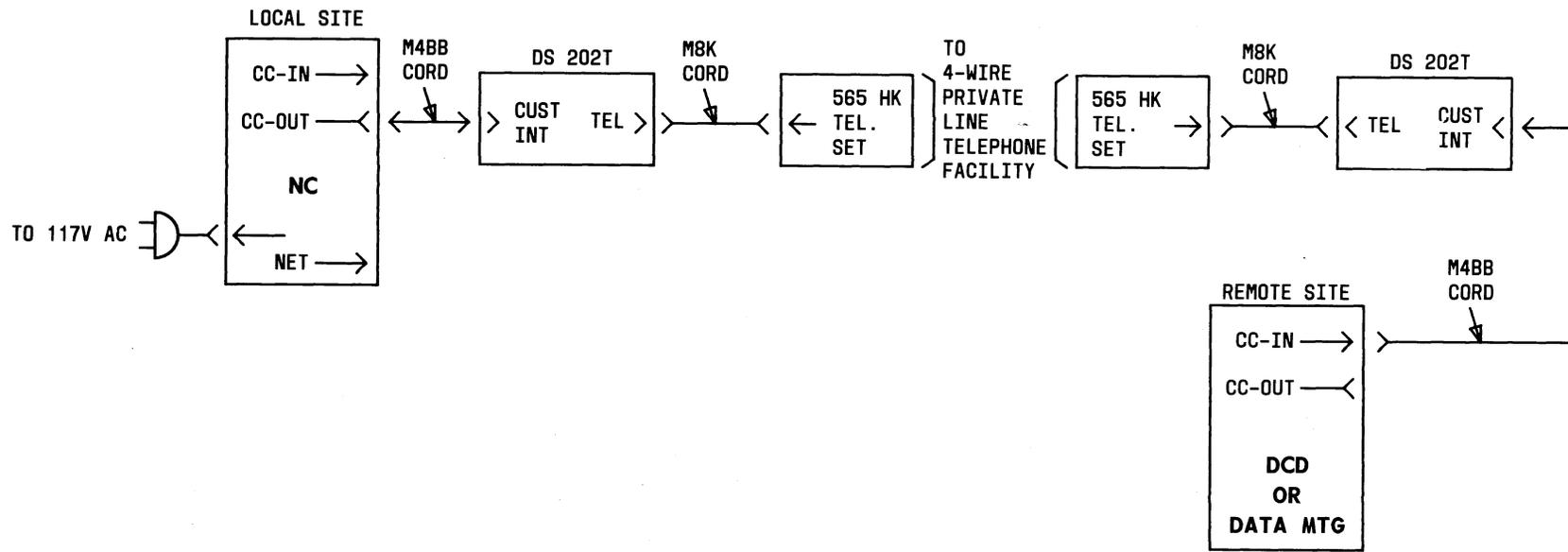


Fig. 14—Connection Diagram for NC Using Private Line Telephone Facilities for Control Channel Interface Without Remote Access

TIME_____LOCAL_PORT_NET1_NET2_NET3_____FAULT_TYPE_____TOTAL_SYSTEM_FAULTS:00

enter selection:

Fig. 15—Real-Time Fault Display

TIME_____	LOCAL_PORT	NET1	NET2	NET3_____	FAULT_TYPE_____	TOTAL_SYSTEM_FAULTS:10
15:22	031	1			no response,	
15:20	031	2			no response,	
15:19	021		06		no response,	
15:19	021		01		facility,	
15:19	021		05		no response	

selection-change NC options

accessing tape -- WAIT 0
Current NC Port Options

NC address: 7

Port	Status	Speed	PL/DDD
Local Terminal	On-Line	1200 bps	-
Remote Terminal	On-Line	1200 bps	DDD
Telco	On-Line	300 bps	DDD
Network	On-Line	1200 bps	DDD
printer	On-Line	300 bps	- selectable

choose (r) Change Remote Terminal Port Options
 (t) Change Telco Port Options
 (n) Change Network Port Options
 (p) Change Printer Port Options
 (x) exit

enter choice: p

Change Printer Port Options

Port	Status	Speed	PL/DDD
choose (1)	Off-Line		
(2)	Off-Line		
(3)	On-Line	300bps	-
(c)	continuous		
(s)	selectable		
(x)	exit		

enter choice: 1

Fig. 16—Change NC Options Display

as specified on the service order by choosing each option separately, and then depressing the NEW LINE key or RETURN key. After all the NC options have been set as per service order, choose exit (x) and depress the NEW LINE key. The screen will show **enter selection**.

4.12 Enter **chdt** (change date and time) from the DATASPEED 40/2 terminal and then enter the desired month/day/year; hour:min. Depress the NEW LINE key or RETURN key. The screen will show **enter selection**.

4.13 Enter **chncpl**; (change NC poll list) from the DATASPEED 40/2 terminal, followed by a; (add), then enter local address(es) as in service order with a comma between each local address. Depress the NEW LINE key. The screen will show **enter selection**.

Note 1: If instead of **a** (add) choice, **aq** (acquire) is selected and then NEW LINE key is depressed, all the data sets will be added in the NC poll list automatically, but the NC will poll all 256 possible local addresses which will take several minutes. To stop NC from acquiring a poll list, simultaneously depress the CONTROL and F key on the DATASPEED 40/2 terminal and then release.

Note 2: When a DS 2096 is used the local address is followed by a dash (—), followed

by a number from 1 through 4 which indicates the number of active ports.

4.14 Enter **pw;l**; and then the password. Enter **dsncpl** (display NC poll list) from the DATASPEED 40/2 terminal and then depress NEW LINE key or RETURN key. The NC poll list will be displayed. Refer to Fig. 17 for a display of the screen. Check that the NC poll list is according to service order.

CAUTION: In case of power failure after the NC has been installed, follow installation instructions beginning with the start-up procedure.

5. INSTALLATION TEST

5.01 After installation is completed, the NC should be tested to determine if it is operating properly.

5.02 Execute several nondisruptive tests or commands on local data sets in the control channel network. Some examples of tests or commands that may be used are: EIA status (eia), identity (id). Refer to Section 592-102-100 for result indications. Refer to Table E or F to determine whether a test or command is disruptive.

TIME	LOCAL	PORT	NET1	NET2	NET3	FAULT_TYPE	TOTAL_SYSTEM_FAULTS:10
15:22	031		1			no response,	
15:20	031		2			no response,	
15:19	021			06		no response,	
15:19	021			01		facility,	
15:19	021			05		no response,	

selection-display NC poll list

accessing tape -- WAIT 0

LOCAL	STATUS	LOCAL	STATUS	LOCAL	STATUS	LOCAL	STATUS
011	skip	021	active	031 2	active	066	active

enter selection:

Fig. 17—Display NC Poll List

TABLE E

NETWORK CONTROLLER'S DATA SET TEST AND COMMAND MENU

TEST/COMMAND NAME	SELECTION DISPLAY	DISRUPTIVE/ NONDISRUPTIVE
Display options Display poll list EIA status Identity Receive signal level Receive signal quality Report terminal power Signal profile	(dsop) (dspl) (eia) (id) (rsl) (rsq) (rtp) (sp)	Nondisruptive
Abort test Automatic network test 2096 Change mux Change options Change poll list Circuit loss - inbound Circuit loss - outbound Disable/enable Digital test End-to-end block error test Loopback Make busy Modem test Standby facility Service line Send tone	(abt) (auto) (chmx) (chop) (chpl) (cli) (clo) (dsab) (dt) (ee) (lpbk) (mb) (mt) (sf) (sl) (st)	Disruptive

6. UNIFORM SERVICE ORDER CODE (USOC) INFORMATION

6.01 The USOC structure for DATAPHONE II service network controller consists of; a 3-character USOC hardware designation, a 2-character Universal suffix, and the USOC field identifiers.

6.02 The USOC hardware designation consists of a 3-character USOC, which is 22L for the network controller.

6.03 The Universal suffix for the network controller, which follows the USOC hardware designation, will be decoded using the universal suffix Table G.

6.04 The decision matrix for the network controller is shown in Table H. For example the USOC suffix 02 decodes as A2, B3 indicating that

a 19-inch rack mounting is used with automatic trouble reporting.

6.05 The USOC field identifiers for the network controller consist of diagnostic apparatus address (DAA) and network controller configuration (NCC). The DAA field identifier designates the control channel diagnostic control device address to each diagnostic control device (DCD) on the control channel by a number from 1 through 7. The NCC field identifier shows the port configurations of the network controller. Refer to Table I for decoding the port configurations of the network controller.

6.06 As an example the USOC entry for a network controller that reads 22L01/DAA7/NCC LT4, TL4, PT2. The 22L represents the network controller; 01 suffix decodes as A1, B3 indicating

TABLE F

NETWORK CONTROLLER'S OPERATING COMMAND MENU

COMMAND NAME	SELECTION DISPLAY	DISRUPTIVE/ NONDISRUPTIVE
Directory modem profile Display fault log Display modem profile Display NC options Display NC poll list Display network faults Display network status Display queue NC remote DCD commands Restore display heading	(drmp) (dsfl) (dsmp) (dsncop) (dsncpl) (dsnf) (dsns) (dsq) (nrcr) (rdh)	Nondisruptive
Auto trouble report control Auto trouble report file Backup modem profile Change date and time Change modem profile Change NC identity Change NC options Change NC poll list Clear network faults Delete delayed selection Fault reporting NC operating mode Password commands	(atr) (atrf) (bump) (chdt) (chmp) (chncid) (chncop) (chncpl) (clnf) (dl ds) (fr) (ncom) (pw)	Disruptive

TABLE G

PARTIAL UNIVERSAL
SUFFIX TABLE

USOC SUFFIX	A	B
01	1	3
02	2	3
03	1	4
04	2	4

23-inch rack mounting with automatic trouble reporting (refer to Table G and H); DAA7 indicates the diagnostic apparatus address is 7 (this number is unique for each DCD on the control channel); the NCC stands for network controller configuration; LT4 stands for the local terminal operating (ON-Line)

at 1200 bps on a private line facility; TL4 represents that the Telephone Company terminal is operating (ON-Line) at 1200 bps on a private line facility; PT2 represents that the printer terminal is operating (ON-Line) at 300 bps on a private line. Refer to Section 592-102-100 for a detailed description of USOC.

7. REFERENCES

7.01 Additional information concerning DATA-PHONE II service network controller, diagnostic control, and data sets is contained in the following Bell System Practices:

SECTION	TITLE
574-500-200	43 Basic Teleprinter—Installation and Removal

TABLE H

NC USOC SUFFIX DECISION MATRIX

DECISION	DESCRIPTION
A1	23-inch rack mounting
A2	19-inch rack mounting
B3	With automatic trouble reporting
B4	Without automatic trouble reporting

TABLE I

NETWORK CONTROLLER CONFIGURATION FIELD IDENTIFIERS

DESCRIPTION	LOCAL TERMINAL (LT)	REMOTE TERMINAL (RT)	TELCO PORT (TL)	AUXILIARY PORT (AX)	NETWORK PORT (NT)	PRINTER PORT (PT)
1. Off-line	NA	✓	✓	✓	✓	✓
2. On-line 300 PL	✓	✓	✓	✓	✓	✓
3. On-line 300 DDD	NA	✓	✓	✓	✓	NA
4. On-line 1200 PL	✓	✓	✓	✓	✓	NA
5. On-line 1200 DDD	NA	✓	✓	✓	✓	NA

✓ Available

NA Not Applicable

SECTION	TITLE	SECTION	TITLE
582-200-202	Teletypewriter Compatible DATASPEED® 40/2—Installation	592-040-220	Private Line Data Sets 2024, 2048, and 2096, —Installation and Connections— Stand Alone-Multiple—DATAPHONE® II Service
592-031-200	Data Set 202T-Type—Transmitter-Receiver—Installation and Connections	592-040-510	Switched Network Data Sets 2024 and 2048—Test Procedures—Stand Alone-Multiple—DATAPHONE® II Service
592-039-200	Data Set 212AR-L1A/2A Installation and Connections	592-040-520	Private Line Data Sets 2024, 2048, and 2096—Test Procedures—Stand Alone-Multiple—DATAPHONE® II Service
592-040-110	Switched Network Data Sets 2024B and 2048B—Description and Operation—Stand Alone-Multiple DATAPHONE® II Service	592-101-100	2100A Data Control Unit (Diagnostic Console)—Description and Operation—DATAPHONE® II Service
592-040-120	Private Line Data Sets 2024, 2048, and 2096—Description and Operation— Stand Alone-Multiple DATAPHONE® II Service		

SECTION	TITLE	SECTION	TITLE
592-101-200	2100A Data Control Unit (Diagnostic Console)—Installation and Connections—DATAPHONE® II Service	592-102-100	2200A Data Control Unit (Network Controller)—Description and Operation—DATAPHONE® II Service
592-101-500	2100A Data Control Unit (Diagnostic Console)—Test Procedures—DATAPHONE® II Service	592-102-500	2200A Data Control Unit (Network Controller)—Test Procedures—DATAPHONE® II Service