FEATURE DOCUMENT

SYNCHRONOUS "DATASPEED*" 40/4 SINGLE DISPLAY STATION

CONTENTS PAGE

1. GENERAL

1.01 This feature document describes the new Synchronous DATASPEED 40/4 Single Display Station (SDS), which consists of a new controller, one keyboard display device (KD), up to one printer, a data set, and new interconnecting cables. The station uses a 40C304/AA/001 Single Display Controller (SDC), see Fig. 1. The SDS is more economical to provide than a DATASPEED 40/4 mini-cluster station when only one KD and up to one printer is required at a location more than 600 feet from the nearest Mini-Cluster Controller (MCC) or Device Cluster Controller (DCC) of the same system.

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

1.03 The features described in EL4084 (TDL 60) Supplements 1, 2 and 4 are retained except as given in this document. The Keyboard Display Amplifier (KDA) of EL4084, Supplement 3, does not apply.

1.04 The SDC combines the functions of a Device Cluster Controller (DCC) and a Station Cluster Controller (SCC) as given in TDL60, Supplements 1 and 2.

1.05 The transmission rates are the same as that used in 40/4 Mini-Cluster Stations, 2400 BPS using Data Set 201C or a 251A1 terminal data unit (see EL4084, Supplement 4) and 4800 BPS using Data Set 208A.

1.06 When ordering replaceable components, unless otherwise specified, prefix each part number with the letters "TP" (ie, TP410055).

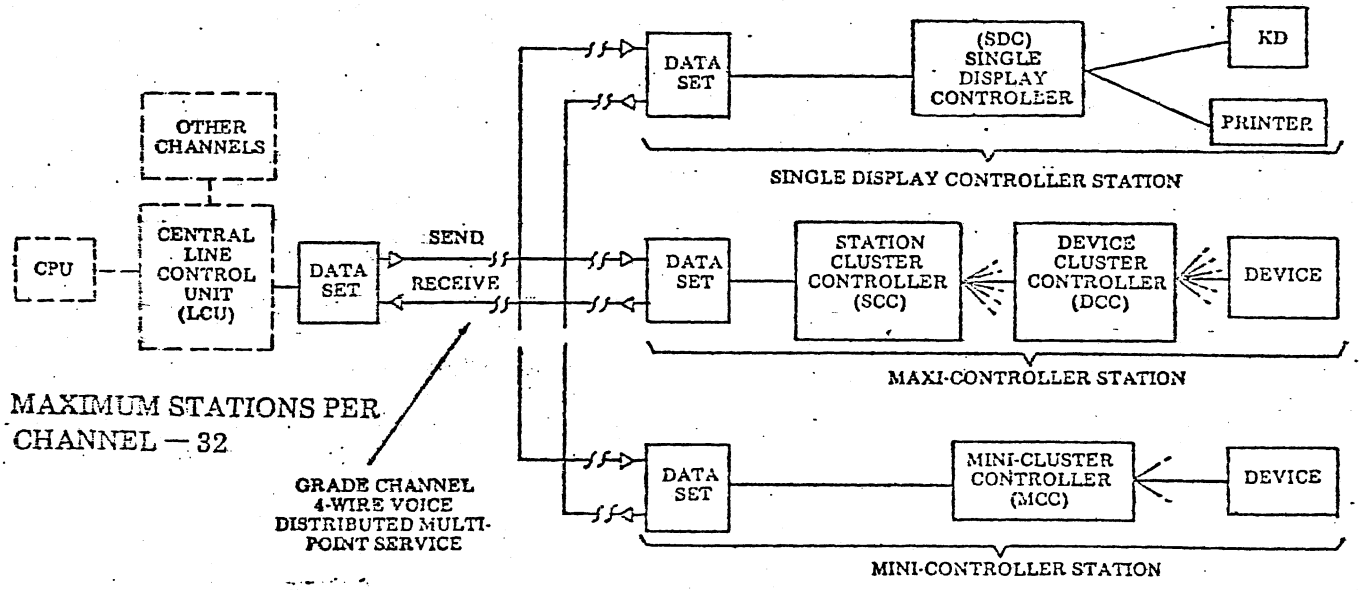

Fig. 1—DATASPEED 40/4 Stations System Block Diagram

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2. TECHNICAL DATA

2.01 Electrical requirements (currents and power shown are maximum values based on power company supplied voltages within the limits 115 V ac +10 percent, 60 Hz +0.1 percent):

	Watts*	Run Current
SDC (with Opcon and Monitor)	200	1.7A
Printer	150	3.0A
Paper Winder	25	

*BTU = Watts x 3.41

2.02 Environmental conditions should be within the following limits to avoid damage and permit proper operation:

Condition	Storage or Transport		Operation	
	Min	Max	Min	Max
Temperature	-40° F	+150° F	+40° F	+110° F
Humidity	2%	95%	2%	95%
Altitude	Sea Level	50,000 Ft	Sea Level	10,000 Ft

Note: As with any device that can be damaged by water, exposure to sudden temperature changes that can cause condensation should be avoided.

Example: A device stored in subzero temperatures will collect frost if moved to a warm, humid room and immediately unpacked.

2.03 The physical dimensions, weight, size and color of a station are the same as given in EL4084. The weight of a 40C304/AA/001 (including power supply) is 52 pounds (estimated).

2.04 The station interfaces are electrically equivalent to the stations of EL4084, but are physically different. Installation, maintenance and cable wiring for this station are given in the sections listed in Memorandum "D" accompanying TDL 60, Supplement 5.

3. DESCRIPTION

3.01 The monitor (display), operator consoles (opcons) and printers (80-column and 132-column) of EL4084 and Supplements 1 and 2 are used in the SDS. The internal modem of EL4084, Supplemental 4 can be used in the SDS. See Fig. 2.

3.02 The 40PSU101 power supply of EL2458 (TDL 44) is used in the SDS. This is the same power supply that is used in a 40/1 station. a 40PSU101 power supply is part of the 40C304/AA/001 controller.

3.03 The cables for the SDS are different from those of EL4084 and are unique to SDS.

3.04 The options introduced in EL4084 and Supplements 1, 2, and 4 are retained. Options 407-411 are added and apply to all DATASPEED 40/4 Stations (see Table). The controller options are installed in the SDC by the installer using the opcon in a special mode that is not accessible by an operator. The mode switch is entered by depressing the controller SELF-TEST switch. The currently selected options are displayed on the monitor. Depression of an appropriate opcon keytop when the cursor is in a given location causes the desired option to be entered. The controller is returned to the operating mode by depressing the LOCAL (or RESET) key on the opcon. The installation method is given in Section 582-200-201, Issue 2. Circuit card switch positions are not used to install options. Fig. 3 shows the SDC layout.

3.05 The SDS can be mounted on customer-provided table tops if desired. No Teletype Corporation pedestals are required, however, it may be advantageous to use a Teletype Corporation pedestal with a slotted top to provide mounting for a tractor feed printer. The controller cabinet used in an SDS is the same as that described in EL 4084, with the addition of a 406047 modification kit (required for proper cabling and grounding).

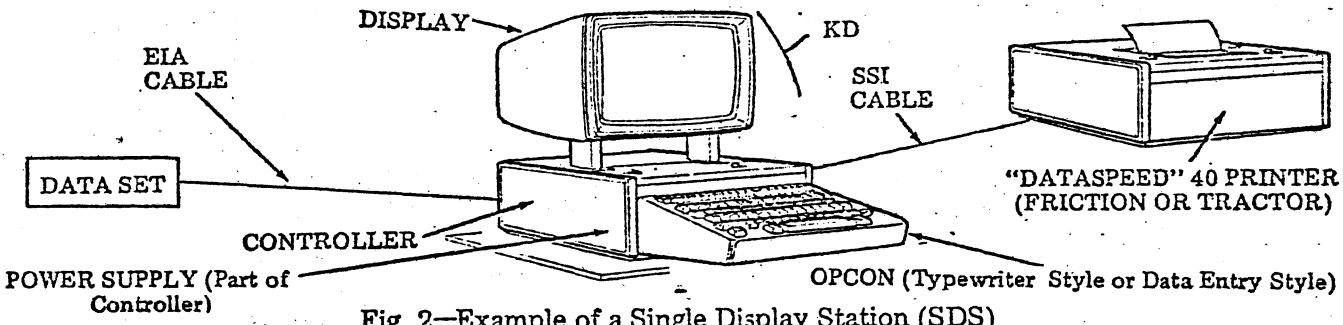

Fig. 2—Example of a Single Display Station (SDS)

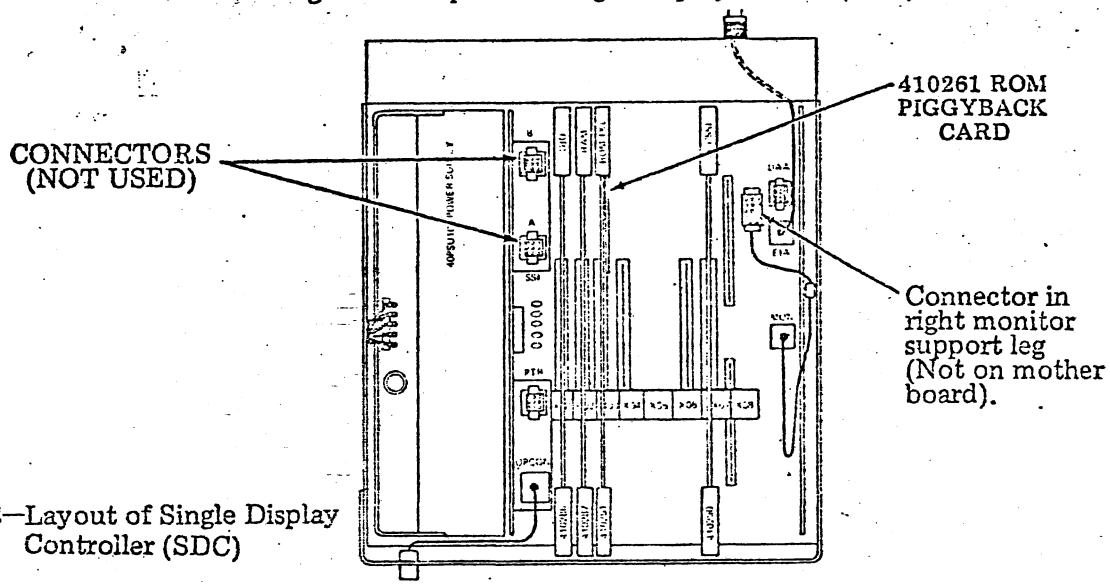

Fig. 3—Layout of Single Display Controller (SDC)

CIRCUIT CARD POSITION NUMBER	CIRCUIT CARD	CIRCUIT CARD DESCRIPTION
X01	410286	DI/O (Display Input/Output)
X02	410287	RAM (Random Access Memory)
X03	410251	ROM/IXL (Read Only Memory/ Instruction Execution Logic)
	410261	ROM (Piggyback on 410251)
X04	NONE	—
X05	NONE	—
X06	NONE	CIU/SSI (I/O Ports)
X07	410290	—
X08*	NONE	—

*A 251A1 terminal data unit may be used in X08.

Fig. 3—Layout of Single Display Controller (SDC)

TABLE
COMPARISON OF CONTROLLER OPTIONS AND FEATURES

SCC/DCC, MCC (of EL4084, Suppl. 1-4)	SDC
Options	
401 (b) Selection of station number 00-31 (which determines poll and select address). Specify station number.	401 (b) (As for SCC/DCC, MCC)
402 Type of alarm on receipt of "sound alarm write control" character or "copy control" character and action upon depressing TAB. Choose (a) or (b*).	402 (As for SCC/DCC, MCC)
(a) Continous alarm Upon depressing TAB, erase to end of field (insert NULLs), cursor moves to first character location of next unprotected field.	(a) (As for SCC/DCC, MCC)
(b) Single alarm Upon depressing TAB, erase to end of field (insert NULLs), cursor moves to first character location of next unprotected field.	(b) (As for SCC/DCC, MCC)
(No corresponding option)	(c) Continuous alarm Upon depressing TAB, erase to end of field (insert NULLs), no cursor movement.
(No corresponding option)	(d) Single alarm Upon depressing TAB, erase to end of field (insert NULLs), no cursor movement.
403 Highlight and/or blink choices for highlight fields and blink fields. Choose (a*), (b) or (c).	403 (As for SCC/DCC, MCC)
(a) Highlight and blink fields are highlighted.	(a) (As for SCC/DCC, MCC)
(b) Highlight and blink fields are blinked.	(b) (As for SCC/DCC, MCC)
(c) Highlight fields are highlighted. Blink fields are blinked. Mixed fields on same display are blinked.	(c) (As for SCC/DCC, MCC)
(No corresponding option)	(d) Blink special intensified fields. Intensified, protected and alphanumeric fields are all blinked. Other highlighted fields are not blinked.

*See legend at end of table.

TABLE (Cont)
COMPARISON OF CONTROLLER OPTIONS AND FEATURES

SCC/DCC, MCC	SDC
Options (Cont)	
404 Type of block abort procedure when station abnormally stops sending on-line. Choose (a*) or (b**).	404 (As for SCC/DCC, MCC)
(a) Terminate with ETX.	(No corresponding option)
(b) Terminate with SUB ENQ, prime the alarm flag.	(No corresponding option)
(No corresponding option)	(c) SDC only - Block abort does not apply.
405 MCC: Selection of device number 00-35 for up to three devices (which determines device addresses). Specify device number for (b), (c) if. used, and (d) if used.	405 (As for SCC/DCC, MCC)
(b) First device	(b) Selection of device number (00-15) for KD. Specify number.
(c) Second device	(c) Selection of device number (00-15). For printer, if printer is used. Specify number different from KD number.
(d) Third device	(d) (Does not apply.)
SCC/DCC: Selection of device numbers accomplished by location of device cables on DCC Interconnect Module.	
406 Choice of (a) allowing or (b) disallowing opcon entry of alpha data in a numeric field. Option 406 has no affect on data entry style opcon. For typewriter style opcon, choose (a) or (b*).	406 (As for SCC/DCC, MCC)
407 Choice of (a) allowing or (b) disallowing "Numeric Lock Special Feature." Option 407 has no affect on typewriter style opcon. For data entry opcon, choose (a) or (b*).	407 (As for SCC/DCC, MCC)
408 Line Code Selection of (a) ASCII (American Standard Code for Information Interchange) line code or (b) EBCDIC (Extended Binary Coded Decimal Interchange Code) line code. Choose (a) or (b).	408 (As for SCC/DCC, MCC)

*, ** See legend at end of table.

TABLE (Cont)
COMPARISON OF CONTROLLER OPTIONS AND FEATURES

SCC/DCC, MCC	SDC
Options (Cont)	
409 Up-low/Monocase Font (ASCII or EBDCIC) (a) Up-low (b) Monocase (c) Line drawing (ASCII only) Choose (a), (b), or (c).	409 (As for SCC/DCC, MCC) (a) Up-low (b) Monocase (No corresponding option) Choose (a) or (b).
410 Typewriter/Data Entry (a) Controller will accept typewriter style opcon. (b) Controller will accept data entry style opcon. Choose (a) or (b).	410 (As for SCC/DCC, MCC)
411 External Data Set/Internal Modem (a) External data set. (b) Internal modem (also enables near end analog loop back capability). Choose (a) or (b).	411 (As for SCC/DCC, MCC)
Features	
Far end loopback test capability. (a) Disabled (b) Enabled CAUTION: CHOOSE (a) FOR OPERATION. USE (b) ONLY FOR A TEST, BUT ONLY WHEN THE LCU IS NOT IN OPERATION, OR (IF THE LCU IS IN OPERATION) UNDER THE CONTROL OF THE LCU OPERATIONS CENTER. FAILURE TO OBSERVE THIS PRECAUTION CAN RESULT IN SCRAMBLED TRANSMISSION AND POSSIBLY HALT SYSTEM OPERATION.	(As for SCC/DCC, MCC)

TABLE (Cont)
COMPARISON OF CONTROLLER OPTIONS AND FEATURES

SCC/DCC, MCC	SDC
Features (Cont)	
Keyboard Display Amplifier (KDA) - to allow KD to be as far as 600 feet from a DCC or MCC.	KD is always at controller location. KDA does not apply.
Alteration of layout of 40K104/DAB opcons to allow more rapid entry of "=" and "¬".	

Legend:

* Factory optioned (for SDC; * refers to selection that provides corresponding operation).

** CAUTION: CERTAIN LCU SYSTEM OPTIONS MAY TERMINATE LINK IF (404 b**) IS INSTALLED.