

TERMINAL CONFIGURATIONS

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TERMINALS SUPPORTED BY
OPERATING SYSTEM

TERMINALS

- I. Time Sharing/ALPHA Numeric
 - 711-10
 - 713-10 /751/752/756
 - 714-10
 - 214-X
 - 714-20
 - 714-30 *140*
 - IBM 2741
- II. Batch/Remote Job Entry
 - 217-X
 - 731-10
 - 731-12
 - 732-10
 - 732-12
 - 733-10
 - 734-1
 - 2780/3780
 - CY18-XX
 - Hasp Multileaving Terminals
- III. Graphics
 - 777-2
 - 774-2
 - 241-1
 - 274
 - Tektronix 4010/4014
 - 777-3

OPERATING SYSTEM							
6000/CYBER 70/CYBER 170						3000L	
NOS R4	NOS R3	NOS	INTERCOM 5	NOS/BE	INTERCOM 4		
NAM 1 RBF 1 IAF 1 TAF 1 CCP 3	NAM 1 RBF 1 TAF 1 CCP 3	TELEX 1,2 E/I 200 1	CCI 3	INTERCOM 4 CCP 1	INTERCOM 4 667X 7077/791	MASTER	MSOS
Yes	TAF ONLY	No	Yes	Yes*	Yes	Yes	No
Yes	No	Yes	Yes	Yes	Yes	Yes	No
Yes	TAF ONLY	No	Yes*	Yes*	Yes	Yes	No
Yes	TAF ONLY	No	Yes	Yes	Yes	Yes	No
Yes	TAF ONLY	No	Yes	Yes*	Yes	Yes	No
Yes	TAF ONLY	No	Yes*	Yes*	Yes	Yes	No
Yes	No	Yes	No	No	No	No	No
Yes	Yes*	Yes	Yes	Yes	Yes	Yes	No
No	No	No	No	No	791 ONLY	No	No
Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
No	No	No	No	No	791 ONLY	No	No
Yes	Yes*	Yes	Yes	Yes	Yes	Yes	No
No	No	No	No	No	791 ONLY	No	No
Yes	Yes*	Yes	Yes	Yes	Yes	Yes	No
No	No	No	Yes	No	No	No	No
Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
Yes	No	No	Yes	No	No	No	No
No	No	No	No	No	6673/4	No	No
No	No	No	No	No	ONLY	No	No
Yes	No	No	Yes	Yes	6673/4	No	No
No	No	No	No	No	ONLY	No	No
Yes	No	No	Yes	Yes	Yes	No	No
No	No	No	No	No	Yes	No	No
Yes	No	Yes	Yes	Yes	Yes	No	No
No	No	No	Yes	Yes	Yes	No	No

* - Reference configuration notes on the following pages for constraints of operating system.

KEY: X FEATURE NOT AVAILABLE ON TERMINAL ASYNCHRONOUS TERMINAL SUPPORT
 Y SUPPORT AVAILABLE

N NO SUPPORT
 (N) SEE EXPLANATORY NOTE

FEATURE OF TERMINAL	NOS/BE 1 INTERCOM 4 CCP 1-D			NOS 1 TELEX			NOS 1 NETWORK PRODUCTS R4 - CCP 4			NOS/BE INTERCOM 5 CCI 3			MASTER V4 - 3000L		
	713	751/756	752	713	751/756	752	713	751/756	752	713	751/756	752	713	751/756*	752*
80 char/line	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lines/display {8/713, 24/751/752/756}	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
33 Control Codes	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Displayable Symbols {75/713, 63/75-751/752/756}	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
ASCII Code, X3.4-1968	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Transmission Rate															
713	N	X	X	N	X	X	N	X	X	N	X	X	N	X	X
713, 751/752/756 75 bps	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	X	X	N	X	X
713, 751/752/756 110 bps	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
713, 751/752/756 150 bps	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
751/752/756 200 bps	X	N	N	X	N	N	X	N	N	X	N	N	X	N	N
713, 751/752/756 300 bps	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
751/752/756 600 bps	X	Y (2)	Y (2)	X	N	N	X	Y	Y	X	Y	Y	X	Y	Y
751/752/756 1200 bps	X	Y (2)	Y (2)	X	N	N	X	Y	Y	X	Y	Y	X	Y	Y
751/752/756 1800 bps	X	N	N	X	N	N	X	Y	Y	X	N	N	X	Y	Y
751/752/756 2400 bps	X	N	N	X	N	N	X	Y	Y	X	N	N	X	Y	Y
751/752/756 4800 bps	X	N	N	X	N	N	X	Y	Y	X	N	N	X	Y	Y
751/752/756 9600 bps	X	N	N	X	N	N	X	Y	Y	X	N	N	X	Y	Y
Half Duplex {Terminal to Modem and Display}	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Full Duplex {Echoplex Only}	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Parity - Odd, Even, None, Zero	Y (3)	Y (3)	Y (3)	Y (7)	Y (7)	Y (7)	Y	Y	Y	Y	Y	Y	Y	Y	Y
Modems															
713, 751/752/756 Bell 103	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
713, 752 Bell 113	Y	N	N	Y (b)	Y (b)	Y (b)	Y (b)	Y (b)	Y (b)	N	X	N	Y (b)	X	Y (b)
713, 751/752/756 Bell 202	N	N	N	Y (b)	Y (b)	Y (b)	Y (b)	Y (b)	Y (b)	N	N	N	Y (b)	N	Y (b)
Circuit Assurance {751/752/756}	X	N	N	X	Y	N	X	N	N	X	N	N	X	N	N
Character Mode Transmission	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Line Mode Transmission {Characters to CR}	X	N	X	X	Y (a)	X	X	Y	X	X	Y	X	X	Y	X
Block Mode Transmission {STX to ETX/EOT-Send}	X	Y (a)	X	X	Y (a)	X	X	Y	X	X	Y	X	X	Y	X
Page Display Mode {751/756 Block Mode}	Y	Y	Y	Y (a)	Y (a)	Y (a)	Y	Y	Y	Y	Y	Y	Y	Y	Y
Scroll Display Mode	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Inverse Video {Multi-Line Fields}	Y (4)	X	X	Y (4)	X	X	Y (4)	X	X	Y (4)	X	X	Y (4)	X	X
Reduced Brightness and Blink {One Line Field}	X	X	Y (4)	X	X	Y (4)	X	X	X	X	X	X	X	X	X
Reduced Brightness & Blink {Multi-Line Field}	X	Y (4)	X	X	Y (4)	X	X	Y (4)	X	X	X	X	X	X	X
Protected Formats {Switch Control}	X	Y (4)	X	X	N	X	X	Y (4)	X	X	X	X	X	X	X
Cursor Address/Sense {Switch Control}	X	Y (4)	Y (4)	X	X	N	X	X	X	X	X	X	X	X	X
Tabulation	X	Y (4)	X	X	Y (4)	X	X	Y (4)	X	X	Y (4)	X	X	X	X
Backspace {From Mainframe}	Y (4)	Y (4)	Y (4)	N	N	Y (4)	N	Y (4)	N	Y (4)	Y (4)	Y (4)	Y (4)	Y (4)	Y (4)
Line Clear {From Mainframe}	Y (4)	X	Y (4)	N	X	X	N	Y (4)	X	X	Y (4)	X	X	Y (4)	Y (4)
Auto LF on CR	X	X	N	X	X	N	N	X	X	X	X	X	X	X	X
Support Non-Impact Printer	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)	Y (5)
Support Impact Printer	X	Y (5)	Y (5)	X	Y (5)	Y (5)	X	Y (5)	Y (5)	X	Y (5)	Y (5)	X	Y (5)	Y (5)
Unconditional Auto Print {Switch Control}	X	Y (5)	Y (5)	X	N	Y (5)	X	Y (5)	Y (5)	X	Y (5)	Y (5)	X	Y (5)	Y (5)
Support of Cassette	X	Y (5)	X	X	Y (5)	X	X	Y (5)	Y (5)	X	Y (5)	Y (5)	X	Y (5)	Y (5)
Answer Back Option	X	Y (5)	X	X	Y (5)	X	X	Y (5)	Y (5)	X	Y (5)	Y (5)	X	Y (5)	Y (5)
Multidrop Option	X	N	X	X	N	X	X	N	N	X	N	N	X	N	N
Current Loop Option	X	N	N	X	N	N	X	N	N	X	N	N	X	N	N

- (1) User can send characters to control
- (2) Full duplex only; Vadic modem compatibility, available only via 2550
- (3) Even parity generated.
- (4) Usable only by selecting ASCII-256 mode with user developed software.
- (5) Locally controlled (slaved to CRT).
- (b) Half duplex only and lost data is possible.
- (7) Odd, even, none.
- (a) Only a line per page.
- (a) Application (i.e., Editor) provide tabs.
- (d) Considered as paper tape.
- (d) Receive only (Block Mode can be effected by an extra key stroke)
- (d) User must hit CR and SEND to transmit the block (otherwise the last line appears incomplete)

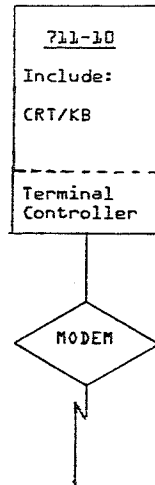
*751/752/756 support via 3X16 is same as 713 support.

751/752/756 support via 2550 is as indicated.

I
TIME SHARING/ALPHA NUMERIC

711-10 ASCII TERMINAL

OPTIONS



- o 711-100 expand memory
- o 711-102 Data Control Feature
- o 711-120 non-impact printer
or
- o 711-121 impact printer

*711-101
PROTECT
FEATURE*

A. GENERAL CONFIGURATION NOTES

1. Printers supported in monitor mode only.
2. 711-102 data control feature, required for INTERCOM Support.
3. 711-101 Protect Feature not supported by standard Software.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
 - Dial-up or dedicated; 2 wire or 4 wire; half duplex.
 - Multidrop with 714 controllers (see 714-10, -20).
 - 2000/2400/4800 BPS dial-up.
 - 2400/4800 BPS dedicated.
 - 711-120, 711-121 Printers are not addressable (slaved only).
 - 200UT or Mode 4C protocol.
2. Intercom 4/CCP 1
 - Same as B.1..
3. Intercom 4-6671/7077/791
 - Same as B.1. except dial-up only at 2000 BPS.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 (NOS R4).
 - Same as B.1.
2. Network Products/CCP 3 (NOS R3).
 - Supported only by Transaction Facility 1.
 - 2000/2400 BPS Dial-up; 2400/4800 dedicated.
3. Timeshare 2 (Telex), E/I 200
 - Not supported.

D. PUBLICATIONS

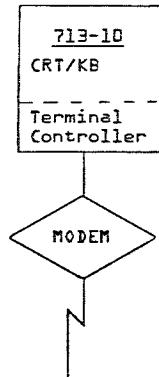
NUMBER	SOURCE	TITLE
62034100	RVL0PS	711-10 Display Terminal Operator's Guide
62022700	RVL0PS	711-10 Display Terminal Reference Manual
62181800	RVL0PS	Non-Impact Printer Station Operator's Guide
62181900	RVL0PS	Non-Impact Printer Station Reference Manual
62129700	RVL0PS	Impact Printer Station Operator's Guide
62129800	RVL0PS	Impact Printer Station Reference Manual

E. CABLES

1. Data set cable (10) type 'A' furnished with each 711-10.
2. Printer station I/O cable (10 ft.) type 'C' furnished with each 711-120 or 711-121. Other standard lengths available (max. of 1000 ft.) via QSE.

Terminal Configurations

713-10 CONVERSATIONAL DISPLAY
{TTY 33, 35, 37, 38 Compatible}



OPTIONS

- o 713-120 non-impact printer
- o 711-100 16 line X 80 character expanded memory

A. GENERAL CONFIGURATION NOTES

1. Operates in TTY {Model 33/35/37/38} compatible asynchronous mode at 110, 150, or 300 BPS.
2. 2-wire, dial-up or dedicated lines.
3. Operates at 110 BPS on 6671 or 6671-2.
4. Operates at 110 or 300 BPS on 6671 or 6671-2 with option 10295-1.
5. Operates at 110 BPS on 6676.
6. Operates at 110 or 300 BPS on 6676 with option 10294-1.
7. Operates at 110/300 BPS on 6671-3.
8. Communication in half duplex mode {2 way alternate}.
9. Uses mode 3 {TTY} protocol.
10. Non-impact printer operates in monitor mode.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
-See Asynchronous Terminal Support Matrix {Page 2}.
2. Intercom 4/CCP 1
-See Asynchronous Terminal Support Matrix {Page 2}.
3. Intercom 4-6671/6676/7077/791
-See Asynchronous Terminal Support Matrix {Page 2}.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 {NOS R4}.
-See Asynchronous Terminal Support Matrix {Page 2}.
2. Network Products/CCP 3 {NOS R3}.
-See Asynchronous Terminal Support Matrix {Page 2}.
3. Timeshare 2 {Telex}, E/I 200
-See Asynchronous Terminal Support Matrix.

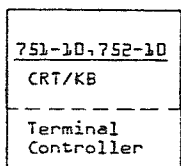
D. PUBLICATIONS

NUMBER	SOURCE	TITLE
62037900	RVL0PS	713-10 Display Terminal Operator's Guide
62033400	RVL0PS	713-10 Display Terminal Reference Manual
62149600	RVL0PS	713-120 Non-Impact Printer Operator's Guide
62149700	RVL0PS	713-120 Non-Impact Printer Reference Manual

E. CABLES

1. Data Set Cable {10 ft.} furnished with each 713-120.
2. One printer may service up to eight display terminals. Total "Daisy Chain" cable length limit is 1500 feet. Printer may be located any place within chain.

751-10, 752-10 DISPLAY TERMINAL



SUPPORTED OPTIONS	751-10	752-10	752-20
751-104 Ans. Bk.	X	-	-
753-10 NIP	X	-	-
753-11 NIP	-	X	X
754-10/20 Cassette	X	-	-
755-10/20	X	-	-
755-11/21	-	X	X
Current Loop	751-103 {Opt}	752-11 {Term}	752-21 {Term}

A. GENERAL CONFIGURATION NOTES

1. Operates in TTY {Model 33/35/37/38} compatible asynchronous mode at speeds up to 9600 BPS.
2. 2-wire, dial-up or dedicated lines.
3. Operates at 110 BPS on 6671 or 6671-2.
4. Operates at 110 or 300 BPS on 6671 or 6671-2 with option 10295-1.
5. Operates at 110 BPS on 6676.
6. Operates at 110 or 300 BPS on 6676 with option 10294-1.
7. Operates at 110/300 BPS on 6671-3.
8. Operates up to 1200 BPS on 2550 {CCP1-0}; up to 9600 BPS on 2550 {CCP3-1/CCI 3}
9. Communication in half duplex mode {2 way alternate}.
10. Uses mode 3 {TTY} protocol.
11. Non-impact and impact printer operates in monitor mode.
12. 150 BPS supported with INTERCOM 4.2 and above.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
-See Asynchronous Terminal Support Matrix {Page 2}.
2. Intercom 4/CCP 1
-See Asynchronous Terminal Support Matrix {Page 2}.
3. Intercom 4-6671/6676/7077/791
-See Asynchronous Terminal Support Matrix {Page 2}.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 {NOS R4}.
-See Asynchronous Terminal Support Matrix {Page 2}.
2. Network Products/CCP 3 {NOS R3}.
-See Asynchronous Terminal Support Matrix {Page 2}.
3. Timeshare 2 {Telex}, E/I 200
-See Asynchronous Terminal Support Matrix.

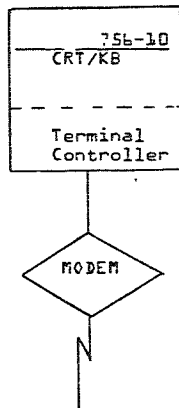
D. PUBLICATIONS

NUMBER	SOURCE	TITLE
62962800	RVL0PS	750 Terminal Subsystem Reference Manual
62951400	RVL0PS	750 Terminal Subsystem Operators Guide
62957200	RVL0PS	750 Installation Instructions
62957300	RVL0PS	752 Operators Guide/Reference Manual
62941000	RVL0PS	752 Installation Instructions

E. CABLES

1. Data Set Cable 10.5 feet furnished with each 751-10, 752-10.
2. Data Set Cable as above furnished with each I/O peripheral.
3. See Page ? for adapter cables for unique communication interface situations.

75b-10 Display Term



	Supported Option	75b-10
60HZ	o 753-11	X
	o 755-11/21	X
	o Current Loop	75b-11
	o Keyboard Layout	
	- Typewriter	75b-201
	- ISO	75b-202
		<u>75b-20</u>
50HZ	o 753-11	X
	o 755-11/21	X
	o Current Loop	75b-21
	o Keyboard Layout	
	- Typewriter	75b-203
	- ISO	75b-204

A. GENERAL CONFIGURATION NOTES

1. Operates in TTY {Model 33/35/37/38} compatible asynchronous mode at speeds up to 9600 BPS.
2. 2-wire, dial-up or dedicated lines.
3. Operates at 110 BPS on 6671 or 6671-2
4. Operates at 110 or 300 BPS on 6671 with 6671-2 with option 10295-1.
5. Operates at 110 BPS on 6676.
6. Operates at 110 or 300 BPS on 6676 with option 10294-1.
7. Operates at 110/300 BPS on 6671-3.
8. Operates up to 1200 BPS on 2550 {CCP1.0} up to 9600 BPS on 2550 {CCP3.1/CCI 3}
9. Communication in half duplex mode {2 way alternate}.
10. Uses mode 3 {TTY} protocol.
11. Non-impact and impact printer operates in monitor mode.
12. 150 BPS supported with INTERCOM 4.2 and above.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
-See Asynchronous Terminal Support Matrix {Page 2}.
2. Intercom 4/CCP 1
-See Asynchronous Terminal Support Matrix {Page 2}.
3. Intercom 4-6671/6676/7077/791
-See Asynchronous Terminal Support Matrix {Page 2}.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 {NOS R4}.
-See Asynchronous Terminal Support Matrix {Page 2}.
2. Network Products/CCP 3 {NOS R3}.
-See Asynchronous Terminal Support Matrix {Page 2}.
3. Timeshare 2 {Telex}, E/I 200
-See Asynchronous Terminal Support Matrix.

D. PUBLICATIONS

NUMBER	SOURCE	TITLE
62957300	RVLOPS	752 Operators Guide/ Reference Manual
62941000	RVLOPS	752 Installation Instructions
62941600	RVLOPS	75b Installation Instructions
62941700	RVLOPS	75b Operators Guide/ Reference Manual

E. CABLES

1. Data Set Cable {10.5 feet} furnished with each 752, 75b.
2. Data Set Cable as above furnished with each I/O Peripheral.
3. See Page 7 for adapter cables for unique communication interface situations.

ADAPTER CABLES FOR UNIQUE COMMUNICATION INTERFACE SITUATION

<u>SITUATION</u>	<u>ADAPTER P/N FOR DEVICE SHOWN</u>		
	<u>751</u>	<u>752</u>	<u>756</u>
o BELL MODEM			
- 113A	61407806		
- 202C	61407807		
o ANDERSON JACOBSON ACCOUSTIC COUPLER			
- ADAC 242		61407808	61407808
- ADAC 1200	61407807		
o DIRECT CONNECTION WITHOUT MODEM			
- SWITCHED CARRIER	61407809	61407809	61407809
- CONSTANT CARRIER	61407810	61407810	61407810

COMMENTS

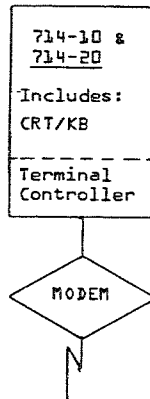
The adapters are short cables which are connected in series with the data set cable between the device and communications interface. They serve to make the necessary interconnecting wiring changes peculiar to that connection. The adapters may be purchased as the P/N shown for \$20.00.

CONTROL DATA
PRICING MANUAL
JUNE 19, 1978

TERMINALS/
SUBSYSTEMS
PAGE 7

714-10 & 714-20 (ASCII) Multi-Station Display Controller

OPTIONS/PERIPHERALS



- o 714-20 (replacement) multi-buffer, multi-station controller. Identical to 714-10, except that it includes (7) printer buffers.
- o 714-123, 16 line x 80 character CRT with data protect and control options.
- o 711-120 non-impact printer & 711-121 impact printer have individual addresses and can print without going through a CRT.
- o 714-122 8 line x 80 character.

A. GENERAL CONFIGURATION NOTES

1. Terminal controller has a maximum of 15 addressable peripherals in any combination of display or printers.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
 - Dial-up or dedicated; 2 wire or 4 wire, half duplex.
 - 2000/2400/4800 BPS dial-up.
 - 2400/4800 BPS dedicated.
 - Can control up to 12 CRT displays or 9 displays and 3 printers which can be 714-122, 714-123, 711-120, or 711-121, in any combination except that printer is addressed as logical unit 4, 8, or 12.
 - Data Protect/Control option not supported.
2. Intercom 4/CCP 1
 - Same as B.1, except data Control is required.
3. Intercom 4 - 6671-7077/791
 - Same as B.1, except dial-up only at 2000 BPS.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 (NOS R4).
 - Same as B.1, except up to 15 addressable peripherals.
2. Network Products/CCP 3 (NOS R3).
 - Supported only by Transaction Facility 1.
 - 2000/2400 BPS dial-up, 2400/4800 dedicated.
3. Timeshare 2 (Telex), E/I 200
 - Not supported.

D. PUBLICATIONS

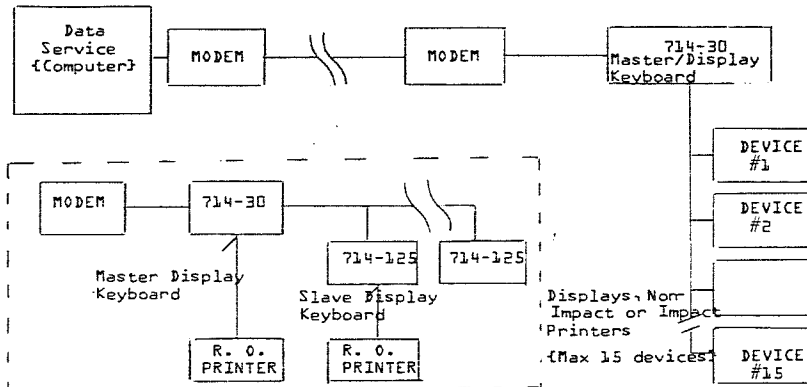
NUMBER	SOURCE	TITLE
82184500	RVL0PS	714 Terminal Operator's Guide
82184600	RVL0PS	714 Terminal Reference Manual
82175900	RVL0PS	Display/Keyboard Station Operator's Guide
82176000	RVL0PS	Display/Keyboard Station Reference Manual
82181800	RVL0PS	Non-Impact Printer Station Operator's Guide
82181900	RVL0PS	Non-Impact Printer Station Reference Manual
82129700	RVL0PS	Impact Printer Station Operator's Guide
82129800	RVL0PS	Impact Printer Station Reference Manual

E. CABLES

1. AT&T 201, 203, or equivalent data set required except for 255x local.
2. Data Set Cable (10 Ft.) furnished with each 714-10 or 714-20.
3. Maximum 'Daisy Chain' cable length from controller to last device is 1000 feet.
4. Display Station I/O Cable (50 Ft.) furnished with Display Station. Other standard lengths available via @SE.
5. Printer Station I/O Cable (10 Ft.) furnished with Printer Station. Other standard lengths available via @SE.

714-30 (ASCII) Multi-Station Display Controller

DIAL-UP CIRCUIT

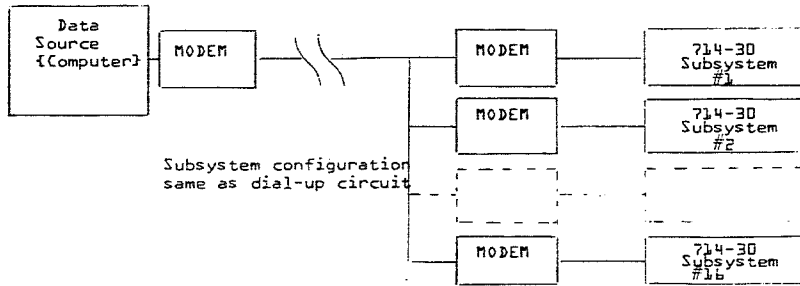


System with Slave Displays and R. O. Printers

OPTIONS/PERIPHERALS

- o 714-30 (replacement) multi-buffer, multi-controller. Consists of controller and CRT/keyboard.
- o 714-125, 16/24 line x 80 character CRT with data protect and control.
- o 753-11 non-impact printer & 755-11/21 impact printer have individual addresses and can print without going through a CRT.
- o See Note A.2.

DEDICATED CIRCUIT
{MULTI-DROP}



A. GENERAL CONFIGURATION NOTES

1. Terminal controller has a maximum of 15 addressable peripherals in any combination of display or printers.
2. Cannot be configured with any 71X products not listed on this page.
3. AT&T 201, 203, or equivalent data set required except for 255X local.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
 - Dial-up or dedicated; 2 wire or 4 wire, half duplex.
 - 2000/2400/4800 BPS dial-up.
 - 2400/4800/9600 BPS dedicated.
 - Can control up to 12 CRT displays or 9 displays and 3 printers which can be 714-125, 753-11, 755-11, or 755-21, in any combination except that printer is addressed as logical unit 4, 8, or 12.
 - Printers are physically connected to the 714-125 slave display. Therefore, the number of printers cannot exceed the number of 714-125's.
2. Intercom 4/CCP 3
 - Same as B.1, except data control is required.
3. Intercom 4 6671-7077/791
 - Same as B.1 except dial-up only at 2000 BPS.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 (NOS R4).
 - Same as B.1 except up to 15 addressable peripherals (maximum of 7 printers).
2. Network Products/CCP 3 (NOS R3).
 - Supported only by Transaction Facility 1.
 - 2000/2400 BPS dial-up, 2400/4800 dedicated.
3. Timeshare 2 (Telex), E/I 2000
 - Not supported.

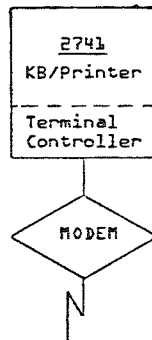
D. PUBLICATIONS

NUMBER	SOURCE	TITLE
62947400	RVLOPS	Operator's Guide
62947500	RVLOPS	On-site Product/Maintenance Manual

E. CABLES

1. Data Set Cable (10 ft.) furnished with each 714-30.
2. Maximum cumulative I/O cable length is 1000 feet.
3. Display Station I/O Cable (50 ft.) furnished with Display Station.
4. Other cable lengths available via QSE.

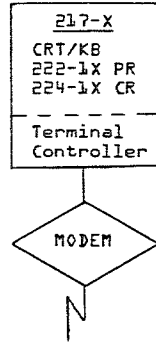
2741 IBM TELETYPE - CLASS TERMINAL



- A. GENERAL CONFIGURATION NOTES
1. Uses 2741 Protocol and Correspondence Code.
- B. NOS/BE CONFIGURATION NOTES
1. Intercom 5/ CCI 3
-Not Supported.
 2. Intercom 4/CCP1
-Not Supported.
 3. Intercom 4 - 6671 - 7077/791
-Not Supported.
- C. NOS CONFIGURATION NOTES
1. Network Products / CCP 3 {NOS R4}.
-Operates on dial-up 134.5 BPS Asynchronous line, 2 wire, half duplex.
 2. Network Products/CCP 3 {NOS R3}.
-Same as C-1.
 3. Time Share 2 {Telex}
-Operates at 134.5 BPS on 6671-3, 6671, or 6671-2 with option 10295-1, 6676 with option 10294-1.
- D. PUBLICATIONS
{not applicable}
- E. CABLES
{not applicable}

II
BATCH

200 USER TERMINAL {217-X}



OPTIONS

- o 217-11 Controller with 50x20 CRT, BCD code
- o 217-12 Controller with 80x13 CRT, BCD code
- o 222-11 Printer {300 LPM}, BCD
- o 222-12 Printer {300 LPM}, BCD
- o 224-11 Reader {300 CPM}, BCD
- o 224-12 Reader {300 CPM}, BCD
- o 217-13 Controller with 50x20 CRT, ASCII code
- o 217-14 Controller with 80x13 CRT, ASCII code
- o 222-13 Printer {300 LPM}, ASCII
- o 222-14 Printer {300 LPM}, ASCII
- o 224-13 Reader {300 CPM}, ASCII
- o 224-14 Reader {300 CPM}, ASCII

A. GENERAL CONFIGURATION NOTES

1. Dial-up or dedicated line.
2. 2-wire or 4-wire.
3. Operates at 2000/2400 BPS.
4. Half duplex mode {2 way alternate}, ASCII or BCD.
5. Effective speeds of peripherals depend upon length of records, protocol and line speed and may be less than rated speeds.
6. 4800 BPS available as option.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
-Support as in A. plus multidrop with up to 12 controllers.
2. Intercom 4/CCP 1
-Same as B.1.
3. Intercom 4 - 6671-7077/791
-Same as B.1.

C. NOS CONFIGURATION NOTE

1. Network Products/CCP 3 {NOS R4}.
-Same as B.1.
2. Network Products/CCP 3 {NOS R3}.
-Same as B.1.
3. E/I 200
-Same as B.1 except only BCD support.

D. PUBLICATIONS

NUMBER	SOURCE	TITLE
{217-11 & 217-12} 82128000	RVLOPS	200 UT Hardware Reference Manual
{217-13 & 217-14} 82136000	RVLOPS	200 UT Op. & Prog.

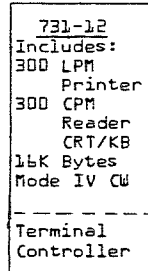
E. CABLES

1. The following cables are provided with each 217-X

Card Reader	15 ft.	p/n	61094400
Line Printer	15 ft.	p/n	61068400
Modem	30 ft.	p/n	61023102

731-12 LOW SPEED BATCH TERMINAL

OPTIONS



- o 731-106 IBM 2780 Emulation CW
- o 731-107 Mode II CW

A. GENERAL CONFIGURATION NOTES

1. Dial-up or dedicated line.
2. 2-wire or 4-wire.
3. Operates at 2000/2400/4800 BPS
4. Half duplex mode {2 way alternate}
5. Effective speeds of peripherals depend upon length of records, protocol and line speed and may be less than rated.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
-Supported as in A.
2. Intercom 4/CCP 1
-Supported as in A.
3. Intercom 4-bb71/7077/791
-Supported as in A.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 {NOS R4}.
-Supported as in A.
2. Network Products/CCP 3 {NOS R3}.
-Supported as in A.
3. E/I 200
-Supported as in A except only BCD Support.

D. PUBLICATIONS

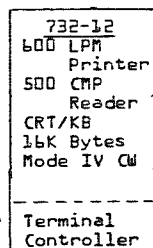
NUMBER	SOURCE	TITLE
82187000	RVLOPS	{731-106} IBM 2780 Emulation CW
82183500	RVLOPS	{731-107} Mode II CW
82183400	RVLOPS	{731/732-12} Op. and Prog.
82183800	RVLOPS	Display Station Hdw. Ref./CE

E. CABLES

1. The following cables are provided with each 731-12.
 - o Data Set 10 ft. P/N 11023101
 - o Printer 30 ft. P/N 10357902
 - o Card Reader - Built In

732-12 MEDIUM SPEED BATCH TERMINAL

OPTIONS



- o 732-106 IBM 2780 Emulation CW
- o 732-107 Mode II Controlware

A. GENERAL CONFIGURATION NOTES

1. Dial-up or dedicated line.
2. 2-wire or 4-wire.
3. Operates at 2000/2400/4800 BPS on 6671, 6671-2, or 6671-3, 255X, 7077/791.
4. Operates at 9600 BPS on 6671-3, 255X, 7077/791.
5. Effective speeds of peripherals depend upon length of records, protocol, line speed, and may be less than rated speeds.
6. Half duplex mode (2 way alternate).
7. Uses 200 UT protocol.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
-Supported as in A.
2. Intercom 4/CCP 1
-Supported as in A.
3. Intercom 4-6671/7077/791
-Supported as in A.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 (NOS R4).
-Supported as in A.
2. Network Products/CCP 3 (NOS R3).
-Supported as in A.
3. E/I 200
-Supported as in A except only BCD Support.

D. PUBLICATIONS

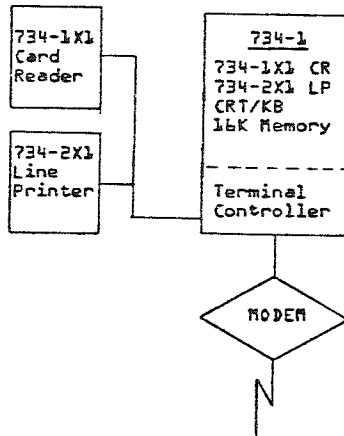
NUMBER	SOURCE	TITLE
82163500	RVLOPS	731/732-10 Mode II Op. & Prog.
82163800	RVLOPS	Display Station Hdw./CE
82167000	RVLOPS	2780 Op. & Prog.
82163400	RVLOPS	731/732-12 Op. & Prog. (Mode IV)

E. CABLES

1. The following cables are provided with each 732-12.
 - o Data Set 10 ft. 61023101
 - o Printer 30 ft. 10353902
 - o Card Reader 30 ft. 10353902

* Reference 7077/791 and 255x/HCP configuration rules in communications section.

734 BATCH TERMINAL



PERIPHERALS & OPTIONS

- o 734-101 300 CPM Card Reader
- o 734-151 600 CPM Card Reader
- o 734-201 300 LPM Line Printer
- o 734-251 600 LPM Line Printer
- o 734-11 IBM 2780 Emulation
- o 734-12 IBM 3780 Emulation

A. GENERAL CONFIGURATION NOTES

1. Dial-up or dedicated line.
2. 2-wire or 4-wire.
3. Operates at 2000/2400 BPS on 6671.
4. Operates at 2000/2400/4800 BPS on 6671 with option 10258-1.
5. Operates at 2000/2400/4800 BPS on 6671-2 or 6671-3.
6. Operates at 9600 BPS on 6671-3, 255x,7077/791.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/ CCI 3
-Supported as in A.
2. Intercom 4/CCP 1
-Supported as in A.
3. Intercom 4 - 6671/7077/791
-Supported as in A.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP3 {NOS R4}.
-Supported as in A.
2. Network Products/CCP 3 {NOS R3}.
-Supported as in A.
3. E/I 200
-Supported as in A except only BCD Support.

D. PUBLICATIONS

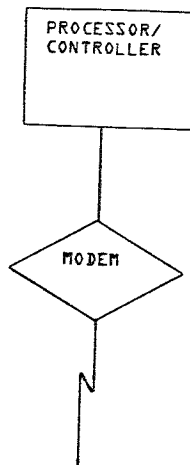
<u>NUMBER</u>	<u>SOURCE</u>	<u>TITLE</u>
62971300	RVL0PS	Batch Terminal Reference Manual {734-1}
62971500	RVL0PS	Batch Terminal Operators Guide {734-1}
82176000	RVL0PS	Keyboard Display Reference Manual
82175900	RVL0PS	Keyboard Display Operator's Guide
62971400	RVL0PS	Batch Terminal Reference Manual {option 734-11}
62971600	RVL0PS	Batch Terminal Operator's Guide {option 734-11}
59709100	RVL0PS	Line Printer Reference Manual
82179000	RVL0PS	TFC Hdw. Diag. Sys. Instant Reference Manual

E. CABLES

1. The following cables furnished with each 734-1:
 - o Data Set Cable {30 ft.}
 - o Reader Cable {10 ft.} and Printer Cable {20 ft.}
 - o Controller to Keyboard/Display Cable {5 ft.}

CYBER 18-XX {200UT CONTROLWARE}

CY18- 5, - 10M, - 20, - 30 WITH 1890-1 OPTION

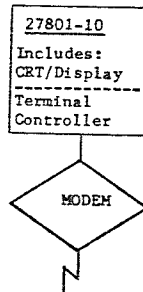


- o 300 CPM Card Reader, 1829-30
 - o 600 CPM Card Reader, 1829-60
 - o 300 LPM Printer, 1827-30
 - o 600 LPM Printer, 1827-60
 - o 200UT Controlware Option, 1890-1
- NOTE: See CY18 Section for Configuration details

- A. General Configuration Notes
1. Supported under NOS, NOS-BE only in 200UT emulating mode.
- B. NOS/BE Configuration Notes
Support is the same as 734 Batch Terminal
- C. NOS Configuration Notes
Support is the same as 734 Batch Terminal
- D. Publications
- | | | |
|----------|-----|---|
| 96768910 | LDS | Batch Controlware Reference Manual |
| 96768900 | LDS | Batch Controlware Installation Handbook |
- E. Cables
{See CY18 Configurator}

27801-10 Batch (IBM) Terminal

OPTIONS



- o 300 CPM Card Reader, 27801-11
- o 600 CPM Card Reader, 27801-12
- o 300 LPM Printer, 27801-21 (80COL)
- o 300 LPM Printer, 27801-22 (136COL)
- o 600 LPM Printer, 27801-25 (136COL)
- o 200 U.T. Option, 27801-91

A. GENERAL CONFIGURATION NOTES

- 1. Supported under NOS, NOS-BE, only in 200 U.T. emulating mode.

B. NOS/BE CONFIGURATION NOTES

-Support is the same as 734 Batch Terminal.

C. NOS CONFIGURATION NOTES

-Support is the same as 734 Batch Terminal.

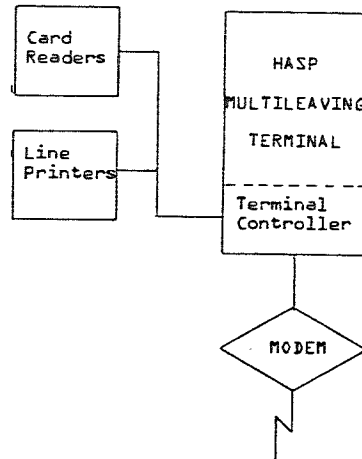
D. PUBLICATIONS

NUMBER	SOURCE	TITLE
62971400	RVLOPS	Batch Terminal Reference Manual (27801-10)
62971600	RVLOPS	Batch Terminal Operators Guide (27801-10)
82176000	RVLOPS	Keyboard Display Reference Manual
82175900	RVLOPS	Keyboard Display Operators Guide
629713000	RVLOPS	Batch Terminal Reference Manual (27801-91)
629715000	RVLOPS	Batch Terminal Operators Guide (27801-91)
59709100	RVLOPS	Line Printer Reference Manual
82179000	RVLOPS	TFC Hdw. Diag. Sys. Instant Reference Manual

E. CABLES

Data Set Cable (30') furnished type A.
Reader cable (10') and Printer cable (20') furnished with Controller.
Controller to Keyboard/Display Cable (5') furnished.

HASP MULTILEAVING TERMINALS



OPTIONS

Consoles
Card Punch
Plotter

{These terminals are produced
by many vendors such as Data-
100, HARRIS-COPE, etc.}

A. GENERAL CONFIGURATION NOTES
-Dependent on vendor.

B. NOS/BE CONFIGURATION NOTES

1. INTERCOM 5/CCI 3

-Speeds up to 19,200 bits per second.

-The maximum configuration supported is 7 card readers, 7 printers, and a combination of card punches and plotters totaling not more than 7.

2. INTERCOM 4/CCP 1

-Not supported.

3. INTERCOM 4 - 667 1

-Not supported.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 {NOS R4}

-Speeds up to 19,200 bits per second.

-The maximum configuration supported is 7 card readers, 7 printers, and a combination of card punches and plotters totaling not more than 7.

2. Network Products/CCP 3 {NOS R3}

-Not supported.

3. E/I 200

-Not supported.

D. PUBLICATIONS

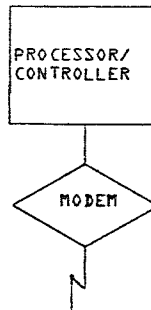
-Dependent on vendor.

E. CABLES

-Dependent on vendor

2780/3780 TERMINALS

{The CYBER 18-XX with 1890-2, 1890-3 controlware options is described. In addition other vendors offer 2780/3780 compatible terminals}



- CY18-05, -10, -10M, -20, -30
- o 300 CPM Card Reader, 1829-30
 - o 600 CPM Card Reader, 1829-60
 - o 300 LPM Printer, 1827-30
 - o 600 LPM Printer, 1827-60
 - o 2780 Controlware, 1890-2
 - o 3780 Controlware, 1890-3

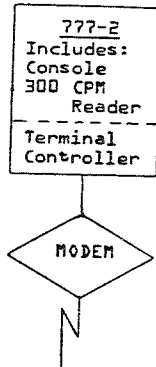
NOTE: See CY18 section for configuration details.

- A. GENERAL CONFIGURATION NOTES
 - See CY 18 Section or vendor specifications
- B. NOS/BE CONFIGURATION NOTES
 1. Intercom 5/ CCI 3
 - Supported using Bisync protocol at synchronous speeds of 2000/2400/4800/9600 BPS.
 2. Intercom 4/CCP 3
 - Not Supported
 3. Intercom 4 - 6671/7077/791
 - Not Supported
- C. NOS CONFIGURATION NOTES
 - Not Supported
- D. PUBLICATIONS
 - See CY18-XX or vendor
- E. CABLES
 - See CY18 Configurator or Vendor Specifications.

III
GRAPHICS

777-2 HIGH SPEED CYBER GRAPHICS TERMINAL

OPTIONS



- o 774-1, console work station.
- o 1726-405, card reader or 1726-430.
- o 1742-30 line printer or 1742-120 line printer.
- o memory expansion
- o 1711, TTY, 1713, or 713 TTY compatible.

A. GENERAL CONFIGURATION NOTES

1. Up to {2} 774-1 consoles on a controller.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
 - Not Supported.
2. Intercom 4/CCP 1
 - Not Supported.
3. Intercom 4 - 6673/4
 - Operates on 40,800 or 50,000 BPS wide band line, with 6673, 6674.
 - Uses 4-wire full duplex {two way alternate}.
 - Uses Wide Band Protocol {EXPORT/IMPORT HS}.
 - If additional 774-1 consoles or remote job entry peripherals are added, 4K memory increments should be added to reduce degradation of performance.
 - Operation with SCOPE/INTERCOM requires 777/IGS software package; in addition 3D/IGS software gives added feature performance.
 - Requires a 415 card punch on the Host for Controlware Deck maintenance.

C. NOS CONFIGURATION NOTES
{not supported}

D. PUBLICATIONS

NUMBER	SOURCE	TITLE
82165700	RVLOPS	Console Reference Manual

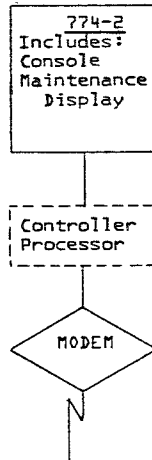
E. CABLES

1. The following cables are provided with each 777-2.

	P/N	QTY
o Terminator Power Cable	61258700	1
o Register Signal Cable	61258600	1
o Shielded I/F cable {30 ft.}	10353902	4
o Interrupt Cable {30 ft.}	18201904	2

774-2 CYBER GRAPHICS TERMINAL

OPTIONS



- o 1742-120 or 1742-30 Line Printer
- o 1711, 1713 or 713 TTY Compatible Device
- o 1729, 430/1728 or 405/1726 Card Reader
- o 774-1

A. GENERAL CONFIGURATION NOTES

1. Adapts to 1704, or 1774 or 1784-2 Processor, requires card reader (same configuration notes apply as on 777-2).

B. NOS/BE CONFIGURATION NOTES

1. INTERCOM 5/CCI 3
 - Not Supported
2. INTERCOM 4/CCP 1
 - Not Supported
3. INTERCOM 4 - 6673/4
 - Operates on 40,800 BPS or 50,000 BPS wideband line with 6673, 6674.
 - Use 4-wire full duplex (two way alternate)
 - Uses wideband Protocol (Export/Import HS)
 - If additional 774-1 consoles or remote job entry peripherals are added, 4K memory increments should be added to reduce degradation of performance.
 - Operation with SCOPE/INTERCOM requires 777/IGS software package; 3D/IGS software provides additional features.
 - Requires a 415/415-30 card punch on the Host for controlware deck maintenance.

C. NOS CONFIGURATION NOTES
{not supported}

D. PUBLICATIONS

NUMBER	SOURCE	TITLE
82165700	RVL0PS	Console Reference Manual

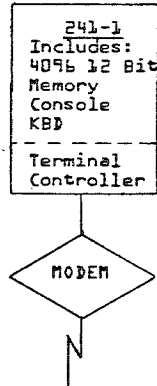
E. CABLES

1. The following cables are provided with each 774-2:		P/N	QTY
o	Terminator Power Cable	61258700	1
o	Register Signal Cable	61258600	1
o	Shielded I/F cable (30 ft.)	10353902	4
o	Interrupt Cable (30 ft.)	18201904	2

241 GRID TERMINAL OR LCGT, GRAPHICS SUBSYSTEM

OPTIONS

- o 248-2 expanded memory, 8192 12 bit
- o 10182 expanded symbol set



A. GENERAL CONFIGURATION NOTES

1. Dial-up or dedicated line.
2. 2-wire or 4-wire, up to 12 drops.
- *3. Operates at 2000 BPS, dial-up with bb71, bb71-2, and bb71-3.
4. Operates at 2000/2400 BPS on bb71 with option 10258-1.
- *5. Operates at 2400 BPS dedicated line with bb71, bb71-2, and bb71-3.
- *6. Operates at 4800/9600 BPS dedicated line with bb71-2, bb71-3, and 255x/HCP.
7. Operation with SCOPE/INTERCOM requires 241/IGS software package.
- *8. 255x/HCP support local terminal configuration without modems up to 50 ft.
9. Maximum {12} ports, if any, are 4800 BPS with bb71-X.
10. Maximum {4} ports, if any, are 9600 BPS with bb71-X.
11. Half duplex mode {2 way alternate}.
12. Uses 200 UT protocol.
13. Operates at 4800 BPS dial-up with 255x.

* Reference 255X/HCP configuration rules in communications section.

B. NOS/BE CONFIGURATION NOTES

1. Intercom 5/CCI 3
-Support as indicated in A for 255x.
2. Intercom 4/CCP 1
-Support as indicated in A for 255x.
3. Intercom 4 - bb71
-Support as indicated in A for bb71.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 {NOS R4}.
-Supported as indicated in A for 255x.
2. Network Products/CCP 3 {NOS R3}.
-Not Supported.
3. E/I 200
-Not Supported.

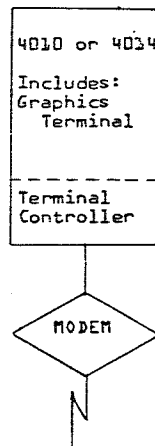
D. PUBLICATIONS

<u>NUMBER</u>	<u>SOURCE</u>	<u>TITLE</u>
82144300	RVLOPS	241-1 Op. & Prog.
82144400	RVLOPS	241-1 Hdw. Ref/CE Manual
82134600	RVLOPS	Grid Term. Controller Book 1
82134700	RVLOPS	Grid Term. Controller Book 2
82134800	RVLOPS	Grid Term. Controller Book 3
82134900	RVLOPS	Grid Term. Console Hdw. Ref. ICE

E. CABLES

1. Data set 25 feet #6102310X provided with each 241.

4010 & 4014 TEKTRONIX GRAPHICS TERMINAL



OPTIONS

- o Asynchronous operation standard
- o Synchronous operation requires TEKTRONIX option 20 synchronous interfaces.
- o 4631 hard copy recorder

A. GENERAL CONFIGURATION NOTES

1. Synchronous Operation -
 - a) Operates at 2000 dial-up on 2400 or 4800 BPS dedicated synchronous line {2 wire or 4 wire} with 6671.
 - b) Operates at up to 4800 BPS dial-up with 255X.
2. Asynchronous Operation -
 - a) Operates at 110 to 300 BPS dial-up or dedicated line with 6671 or 6676.
 - b) Operates at 110, 300, 1200 BPS dial-up or up to 4800 BPS dedicated with 255X/CCP3.1.

B. NOS/BE CONFIGURATION NOTES

1. INTERCOM 5/ CCI 3
-Support as indicated in A for 255X.
2. INTERCOM 4/CCP 1
-Support as indicated in A for 255X.
3. INTERCOM 4 - 6671
-Support as indicated in A for 6671.

C. NOS CONFIGURATION NOTES

1. Network Products/CCP 3 {NOS R4}.
- Support as indicated in A for 255X.
2. Network Products/CCP 3 {NOS R3}.
-Supported only in asynchronous operation as indicated in A for 6671.
3. Timeshare 2 {Telex}
-Supported only in asynchronous operation as indicated in A for 6671.

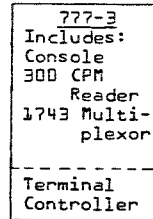
D. PUBLICATIONS

Contact vendor

E. CABLES

Contact vendor

777-3 VOICE GRADE CYBER GRAPHICS TERMINAL



OPTIONS

- o 774-1, additional console work stations.
- o 1726-405, card reader or 1728-430.
- o 1742-30 line printer or 1742-120 line printer.
- o memory expansion
- o 1711, TTY, 1713 or 713 TTY compatible

A. GENERAL CONFIGURATION NOTES

1. Up to {2} 774-1 consoles on a controller.
2. Operates on switched lines to 4800 BPS, dedicated to 9600 BPS, with 6671 and 255X.
3. Uses half duplex {two way alternate} 2 or 4 wire.
4. Uses 200 UT {MODE 4} Protocol.
5. If additional 774-1 consoles or remote job entry peripherals are added, 4K memory increments should be added to avoid degradation of performance.
6. Operation with INTERCOM requires 777/16S software package; 3D/16S software provides additional features.
7. Requires a 415 card punch on the Host for controlware Deck.

B. NOS/BE CONFIGURATION NOTES

1. INTERCOM 5/ CCI 3
-Supported as indicated in A for 255X.
2. INTERCOM 4/CCP 1
-Supported as indicated in A for 255X.
3. INTERCOM 4 - 6671 - 7077/791
-Supported as indicated in A.

C. NOS CONFIGURATION NOTES

{Not Supported}

D. PUBLICATIONS

NUMBER	SOURCE	TITLE
82165700	RVLOPS	Console Reference Manual

E. CABLES

	P/N	QTY
1. The following cables are provided with each 777-3.		
o Terminator Power Cable	61258700	1
o Register Signal Cable	61258600	1
o Shielded I/F cable {30 ft.}	10353902	4
o Interrupt Cable {30 ft.}	18201904	2