Line Control Characters For Bi-Sync.

NAME	*MNEMONIC*	*EBCDIC*	*ASCII*
Start Of Heading	SOH	01	01
Start Of Text	STX	02	02
End Of Transmission Block	ETB	26	17
End Of Text	ETX	03	03
End Of Transmission	EOT	37	04
Enquiry	ENQ	2D	05
Negative Acknowledge	NAK	3D	15
Synchronous Idle	SYN	32	16
Data Link Escape	DLE	10	10
Intermediate Block	ITB	1F	1F
Even Acknowledge	AK0	1070	1030
Odd Acknowledge	ACK1	1061	1031
Wait Before Transmit	WACK	106B	103B
Disconnect	DISC	1037	1004
Reverse Interrupt	RVI	107C	103C
Temporary Text Delay	TTD	022D	0205
Transparent Start of Text	DLE STX	1002	
Transparent Intermediate Block	DLE ITB	101F	
Transparent End of Text	DLE ETX	1003	
Transparent End of a Transmission Block	DLE ETB	1026	
Transparent Synchronous Idles	DLE SYN	1032	
Transparent Block Cancel	DLE ENQ	102D	
Data DLE In Transparent Mode	DLE DLE	1010	
Leading Pad	Pad	5555	
Trailing Pad	Pad	FFFF	

The Function Of Control Characters

SHO or STX	Reset control mode and set adapter to test mode.
ETB or ETX	Reset text mode with block check character (BCC) comparison
EOT	End of transmission.
ENQ	Reset text mode without BCC transmission and comparison.
NAK	Negative response to a request for a reply, or a block of text in error.
SYN	Transmitted automatically by the adapter to establish and maintain synchronization.
DLE	Alert the adapter to test the next character for a defined control character.
ITB	Included in the BCC, it causes the DCC to be sent or received.
IPL	Control characters to decode an IPL sequence. DC1 DC1 ENQ 11112D
ACK 0	Positive acknowledge to even blocks.
ACK 1	Positive acknowledge to odd blocks.
WACK	Alert the transmitting station to a temporary delay in acknowledgement.
DISC	Used on switched communications facility only, to initiate a disconnect.
RVI	Reverse direction of data transfer.
TTD	Alert the receiving station to a temporary time delay.
DLE STX	Turn off control mode and set the adapter to transparent text mode.
DLE ITB	Same as ITB, but also turns off transparent text mode.
DLE ETX or DLE ETB	Same as ETB or ETX but also turns off transparent mode.
DLE SYN	Transmitted automatically by the adapter to establish and maintain synchronization in transparent text mode.
DLE ENQ	Turns off transparent text mode and cancels current block of data.
DLE DLE	Alert the adapter to test the next character for a defined control sequence in transparent test mode. At the receiver the first DLE is stripped off and does enter storage or the BCC.

Display Indicator Console Maintenance Switches:

NOTE: Device Address Line number is selected by use of the xxx switches.

Switch Position	*Lamps*	*Information*
00000XXX		High Order DCB Word 0 (Control Word)
	0	Chain Flag
	1	Not Used, must be zero
	2	Input Flag
	3	Not Used
	4	Not Used
	5	Storage Protect Key
	6	Storage Protect Key
	7	Storage Protect Key
00001XXX		Low Order DCB Word 0 (Control Word)
	0	Half Rate
	1	ASCII Mode
	2	Enable
	3	Disable
	4	Timer
	5	Transmit
	6	Exit Transparent
	7	Not Used
00010XXX		Chain Address High Order Byte
00011XXX		Chain Address Low Order Byte
00100XXX		Byte Count High Order Byte
00101XXX		Byte Count Low Order Byte
00110XXX		C.S. ADDR High Order Byte
00111XXX		C.S. ADDR Low Order Byte
01000XXX		High Order Data Byte (Storage data register)
01001XXX		Low Order Data Byte (Storage data register)
01010XXX	0 Thru 4	Not Used
	5	Interrupt Condition Code Bit 4
	6	Interrupt Condition Code Bit 2
	7	Interrupt Condition Code Bit 1
01011XXX		Interrupt Status Byte
01100XXX		Status Word 1 High Order Byte
	0	Overrun
	1	Timeout
	2	Modem Error
	3	Block Check Error
	4	Multi-Point Transmit Error
	5	Answer Tone Jumper Installed
	6	Multi-Point Tributary Jumper Installed
	7	Internal Clock Jumper Installed
01101XXX		CRC High Order Byte
01110XXX		CRC Low Order Byte or LRC
01111XXX		High Order Byte Status Word 2
	0	Data Terminal Ready
	1	Data Set Ready
	2	Request To Send
	3	Clear To Send
	4	Ring Indicator
	5	Half Rate Select
	6	Transmit Mode Latch
	7	Not Used

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Sequence		Part	EC 374831				
28F0AA	2 of 2	6826715	7-1-78				

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10000XXX Micro-Code Data Word
- 0 Data Terminal Ready
- 1 Data Set Ready
- 2 Request To Send
- 3 Clear To Send
- 4 Transmit Data
- 5 Receive Data
- 6 Transmit Mode Latch
- 7 Receive Mode

10001XXX Micro Code Information

Single Line	*Multi-line*
Not Used	Operate I/O Pending
Not Used	Power On Reset
Not Used	CA Busy
Not Used	CE Request
Not Used	Interrupt Pending
Answer Tone Jumper Installed	
Multi-point Tributary Jumper Installed	
Internal Clock Jumper Installed	

10010XXX Micro Code Information
- 0 Buffer Request
- 1 Overrun
- 2 100 Milli-Sec Timeout Trigger
- 3 Syn Decode Latch
- 4 Transmit Data
- 5 Receive Data
- 6 Not Used
- 7 Not Used

Switch Position	*Lamps*	*Information*
10011XXX		Buffer To Data Bus In
10100XXX		Multi-Point Address In Jumpers
10101XXX		Data Back-up Register (single-line) For Multi-Line: 0 = The Enable Bit 1-7 = Timer value in 50 millisecond increments
10110XXX		Micro Code Information
	0	Change of Direction (COD)
	1	Block Check Character (BCC)
	2	Text Mode
	3	Transparent Mode
	4	DLE 1
	5	Character Phase
	6	Syn 2
	7	Syn 1

10111XXX Micro Code Information

	Single Line	*Multi-line*
0	Selected	
1	Control Mode	
2	VRC Error	
3	BCC Error	
4	ASCII Mode	Chain Bit
5	Timer Flag	Not Used
6	BAL Flag	Receive Flag
7	Byte 1	Place data in High Order byte flag

11000XXX Micro Code Information

Single Line	*Multi-line*
Second DC1	Buffer Service Flag
First DC1	Diagnostic Clock
Address 2	
Address 1	
Timeout	
Chain Flag	Answertone Flag
Transmit Transparent	Clock
Receive Mode	

11001XXX Micro Code Information

	Single Line	*Multi-line*
0	Status Pass Count Flag	Loop Flag
1	DCB Fetch Flag	ITB Flag
2	Byte Mode Flag	EOT/NAK
3	Check IPL Flag	Not Used
4	Diagnostic 1 Flag	Pad Char
5	Diagnostic 2 Flag	Byte Count=0
6	Interrupt Return	Byte Count > 1
7	Display Flag	EOT Flag

11010XXX Micro Code Information (single line)
- 0 IPL Search
- 1 DTR Flag
- 2 Timeout Flag
- 3 Enable Flag
- 4 Odd Address
- 5 ITB Flag
- 6 EOT Nak
- 7 PCI Flag

11011XXX Micro Code Information (single line)
- 0 PAD Character
- 1 IPL 1 Flag
- 2 IPL 2 Flag
- 3 EOT Flag
- 4 Byte Count = 0 Flag
- 5 Byte Count Greater Than 1 Flag
- 6 Byte Count = 6 Flag
- 7 Byte Count Odd Flag

11100XXX Lamp Test (all lamps on)

11101XXX First Character After Char Phase In Received (multi-line only)

11110XXX Last COD Character (multi-line only)

11111XXX Reset DTR If Not Jumpered