RECEIVING CHARACTERS AND COMMANDS

The LA180 receives commands as well as characters to be printed, in the form of 7-bit ASCII codes. The only ASCII control codes recognized by the LA180 are:

BEL (007)   Activates alarm bell.

BS (010)   Backspace.

LF (012)   LF is a line terminator. It causes all characters in the LA180 memory to be printed, performs a carriage return, and advances paper one line.

FF (014)   FF is a line terminator. It causes all characters in the LA180 memory to be printed, performs a carriage return, and advances the paper to the first printable line at the top of the next form. Table 3 lists the number of lines associated with each LENGTH OF FORM switch position.

CR (015)   CR is a line terminator. It causes all characters in the LA180 memory to be printed and performs a carriage return.

DEL (177)   Clears memory of all data.

The following table will be useful when writing programs that interface with the LA180. Table 4 lists the 7-bit ASCII codes and indicates the operation performed by the LA180 with each specific code it receives. Figure 9 illustrates the line rate versus column width for the LA180.

Table 3
FORM LENGTH Switch Positioning

Form Length (inches)	LENGTH OF FORM Switch Setting	Printable Lines Per Form (maximum)
3	3	18
3.5	3.5	21
4	4	24
5.5	5.5	33
6	6	36
7	7	42
8	8	48
8.5	8.5	51
11	11	66
12	12	72
14	14	84
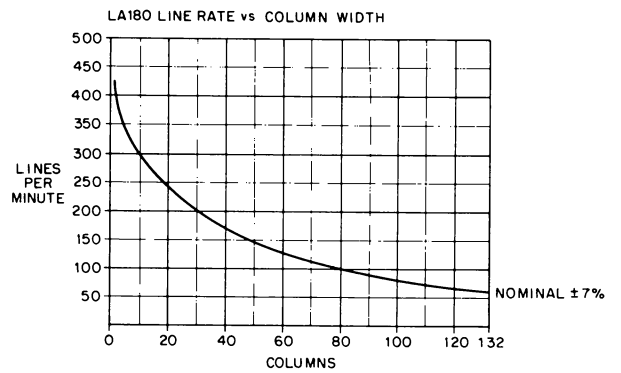
Figure 9   LA180 Line Rate Versus Column Width

Table 4   ASCII Receive Operations

		RECEIVE OPERATIONS	
ASCII Code	**Character**	**Character Printed**	**Action/Description**
000	NUL	None	None
001	SOH	↑	↑
002	STX		
003	ETX		
004	EOT		
005	ENQ		↓
006	ACK		None
007	BEL		Sound Alarm Bell
010	BS		Backspace one position
011	HT		None
012	LF		Performs a print cycle, carriage return and advances paper one line.
013	VT		None
014	FF		Performs a print cycle and a carriage return and advances the paper to the top of the next form
015	CR		Causes all characters in the LA180 memory to be printed and performs a carriage return.
016	SO		None
017	SI		↑
020	DLE		
021	DC1		
022	DC2		
023	DC3		
024	DC4		
025	NAK		
026	SYN		
027	ETB		
030	CAN		
031	EM		
032	SUB		
033	ESC		
034	FS		
035	GS		
036	RS	↓	↓
037	US	None	None
040	SP	Blank Space	Character is recieved and stored in memory

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Table 4   ASCII Receive Operations (Cont)

	RECEIVE OPERATIONS		
ASCII Code	Character	Character Printed	Action/Description
041	!	!	Character is received and stored in memory
042	"	"	
043	#	#	
044	$	$	
045	%	%	
046	&	&	
047	'	'	
050	(	(	
051	)	)	
052	*	*	
053	+	+	
054	,	,	
055	-	-	
056	.	.	
057	/	/	
060	0	0	
061	1	1	
062	2	2	
063	3	3	
064	4	4	
065	5	5	
066	6	6	
067	7	7	
070	8	8	
071	9	9	
072	:	:	
073	;	;	
074	<	<	
075	=	=	
076	>	>	
077	?	?	
100	@	@	
101	A	A	
102	B	B	
103	C	C	
104	D	D	Character is received and stored in memory

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Table 4   ASCII Receive Operations (Cont)

ASCII Code	Character	Character Printed	RECEIVE OPERATIONS Action/Description
105	E	E	Character is received and stored in memory
106	F	F	↑
107	G	G	
110	H	H	
111	I	I	
112	J	J	
113	K	K	
114	L	L	
115	M	M	
116	N	N.	
117	O	O	
120	P	P	
121	Q	Q	
122	R	R	
123	S	S	
124	T	T	
125	U	U	
126	V	V	
127	W	W	
130	X	X	
131	Y	Y	
132	Z	Z	
133	[	[	
134	\	\	
135	]	]	
136	∧	∧	
137	–	–	
140	'	'	
141	a	a	
142	b	b	
143	c	c	
144	d	d	
145	e	e	
146	f	f	
147	g	g	↓
150	h	h	Character is received and stored in memory

Table 4   ASCII Receive Operations (Cont)

	RECEIVE OPERATIONS		
ASCII Code	**Character**	**Character Printed**	**Action/Description**
151	i	i	Character is received and
152	j	j	stored in memory
153	k	k	
154	l	l	
155	m	m	
156	n	n	
157	o	o	
160	p	p	
161	q	q	
162	r	r	
163	s	s	
164	t	t	
165	u	u	
166	v	v	
167	w	w	
170	x	x	
171	y	y	
172	z	z	
173	{	{	
174	‖	‖	
175	}	}	
176	≈	≈	Character is received and stored in memory
177	DEL	None	Clears the memory of all data with a parallel interface. With a seial interface 177 may be used as a full character.

Line Length
132 characters maximum

Spacing
10 characters/in. (horizontal)
6 lines/in. (vertical)

Characters
96 upper/lower case ASCII
7 X 7 dot matrix (0.07 X 0.10 in.)

Paper
Variable width: 3 to 14-7/8 in.
Single-Part:
    15 lb paper minimum
    Card stock thickness of 0.010 in. maximum
Multipart:
    2- to 6-part (see Notes)
    Thickness of 0.020 in. maximum
Tractor-drive, pin-feed

NOTES

1. Multipart forms may have only one card part. The card must be the last part.

2. NCR or 3M paper, up to 6-part, must use ribbon on top copy. First surface impact paper is not recommended.

3. Continuous-feed, fan-fold business forms with 3- or 4-prong margin crimps on both margins (multipart) are recommended. Stapled forms are not recommended and may damage tractors and other areas of the machine. Dot or line glue margins are acceptable (if line is on one margin only). Do not line glue both margins as air will not be able to escape and poor impressions will result.

4. Split forms (forms with each side containing a different number of sheets) are not recommended.

Ribbon
DIGITAL-specified nylon fabric (Part No. 36-12153)
Spool assembly: 0.5 in. wide X 60 yd long

Power
90–132 Vac or 180–264 Vac
50 or 60 Hz ± 1 Hz
400 W maximum (printing)
200 W maximum (idle)

Temperature
Operating
    10° to 40° C (50° to 104° F), noncondensing
Nonoperating
    -40° to 66° C (-40° to 151° F), noncondensing

Relative Humidity
Operating
    10 to 90% with a maximum wet bulb temperature of 28° C (82° F) and a minimum dew point of 2° C (36° F) noncondensing
Nonoperating
    5 to 95%

Dimensions
27.5 in. wide
33.5 in. high
21.7 in. deep

Weight
102 lb