

Specifications

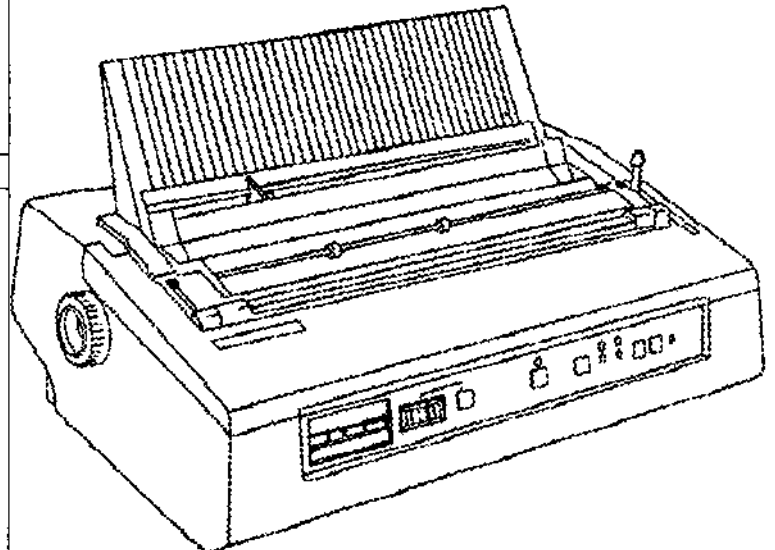
Table 1-2 Specifications (cont'd)

FEATURE	SPECIFICATION
Performance Specifications	
Type	Formed character
Print Speed	Up to 35 cps
Print Line	136 columns at 10 cpi 163 columns at 12 cpi 203 columns at 15 cpi
Impression Control	3-step by operator 8-step by program control
Paper Width	Up to 16 inches
Character Set	Up to 128 fully formed characters
Paper Movement	Forward or reverse, up or down
Carriage Return Time	900 milliseconds (maximum)
Horizontal Resolution	120 increments per inch
Horizontal Tabulation	Normal and addressable - right and left
Vertical Resolution	48 increments per inch
Vertical Tabulation	Normal and addressable - up and down
Line Feed Speed	48 x n* + 40 ms settling time at 1/6-inch per line 36 x n + 40 ms settling time at 1/8-inch per line

FEATURE	SPECIFICATION
Performance Specifications (cont'd)	
Spacing Speed	30 milliseconds at 12 cpi
Form Feed	1 to 99 lines (maximum)
Line Feed	6 or 8 lines per inch (forward/reverse)
Self Test	<ul style="list-style-type: none"> <li>• Prints stored print test</li> <li>• Self-function test**</li> </ul>
Serial Interface Specifications (Models 3510/3520, 3515/3525, and 3500R)	
Compatibility	Electrically compatible with EIA RS-232-C and CCITT V.24 Optional RS-422 interface
Communication	ASCII, Half or Full Duplex
Error Detection	Even/odd parity Framing/overrun error detection
Receive Buffer	2048 characters (standard except Model 3500R) 256 or 2048 characters, switch-selectable (Model 3500R)
Protocol	RTX/ACK or X-ON/X-OFF reverse channel
Parallel Interface Specifications (Model 3530)	
Compatibility	Electrically compatible with Centronics-type parallel interface
Communication Code	ASCII
Receive Buffer	512 or 2048 characters, switch-selectable
Dimensions	
Width:	24.0 inches (610 mm)
Depth:	15.6 inches (395 mm)
Height:	9.2 inches (230 mm); 9 inches (230 mm) including paper release lever

Specifications (cont'd)

FEATURE	SPECIFICATION
Dimensions (cont'd)	
Weight:	37.4 pounds (17 kg) (qualifies for UPS shipment)
Power Requirements	
Input Power	115 Vac ±15%, 2.5 Amps, 50/60 Hz +5% -3%, or 230 Vac ±15%, 1.5 Amps, 50/60 Hz +5% -3%, or 100 Vac ±10%, 3 Amps, 50/60 Hz +5 -3%
Environmental/Reliability Specifications	
Operating Noise Level	60 dBA with cover
Temperature	Operating: 40°F to 100°F (5°C to 38°C) Storage: -22°F to 158°F (-30°C to 70°C)
Altitude	Operating: Sea level to 10,000 ft. Storage: Sea level to 25,000 ft.
MCBF	30 million characters
MTBF	3000 Power On Hours (POH) based on 8 hours per day usage, 20% duty cycle, 50% page density
MTR	15 minutes
Radio Frequency Interference	Designed to accommodate FCC Class A and B. Currently in the process of certification and testing for Class B.
Electrical Safety	Underwriters Laboratory UL478 EDP and Canadian Standards Agency listed
<p>*Number of lines **Not available on Models 3500R or 3530</p>	

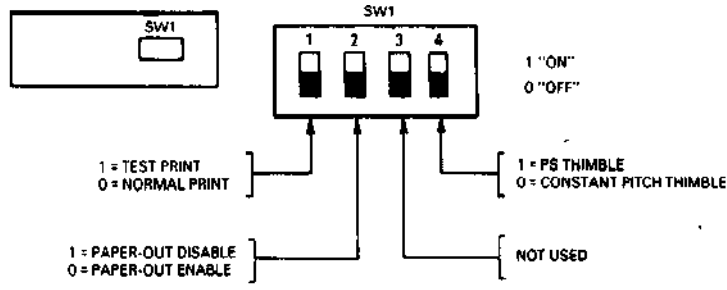
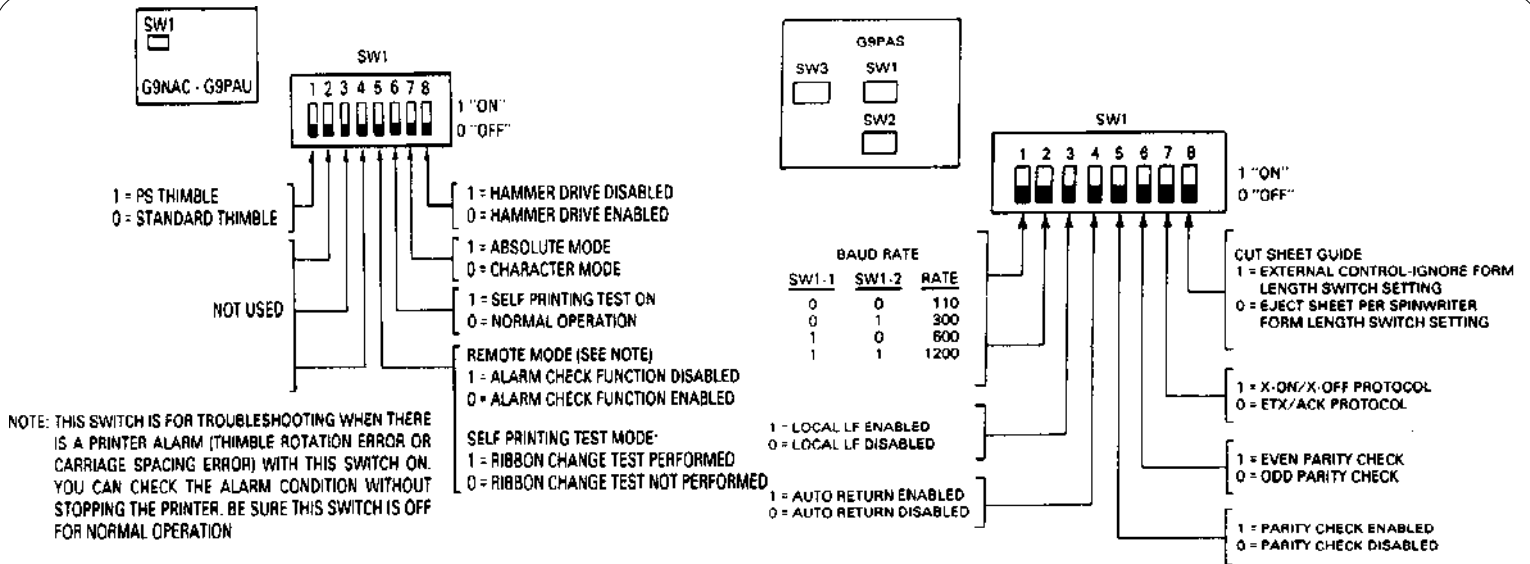


**Question:** I have a NEC Spinwriter 3500 Printer and I am using the WordPerfect Software Version 5.1. I need to know what software driver to select from the list of printers which is included with the software.

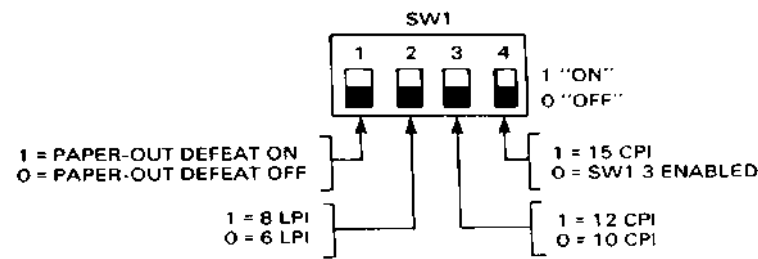
**Answer:** Below is a list of printer drivers which may be selected in order to support the NEC Spinwriter 3500 Printer line under DOS based software application packages.

<b><u>NEC Model</u></b>	<b><u>Software Driver Selection/Emulation</u></b>
NEC 3510	NEC 3510, 5510, 7710 or 8810 Spinwriter. Receive Only ANSI Terminal.
NEC 3515	NEC 3515, 5515, 7715 or 8815 Spinwriter. NEC 2030, 3530, 5530, 7730 or 8830 Spinwriter.
NEC 3530	NEC 3530, 5530, 7730, 8830 Spinwriter. NEC 3515, 5515, 7715, or 8815 Spinwriter.
NEC 3550	NEC 3550 or 8850 Spinwriter.

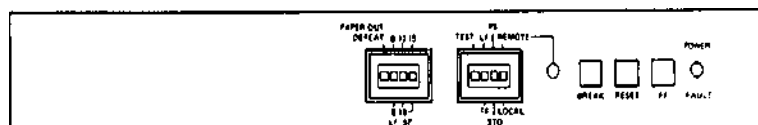
- \* If the software application which is currently being utilized does not list any of the above listed printer driver options, then you may either select a Generic Text Printer driver or, you can contact the software manufacturer to see if they will supply the appropriate printer driver needed.



**3500Q and 3500D Operator Control Panel  
SW1 Switch Functions**

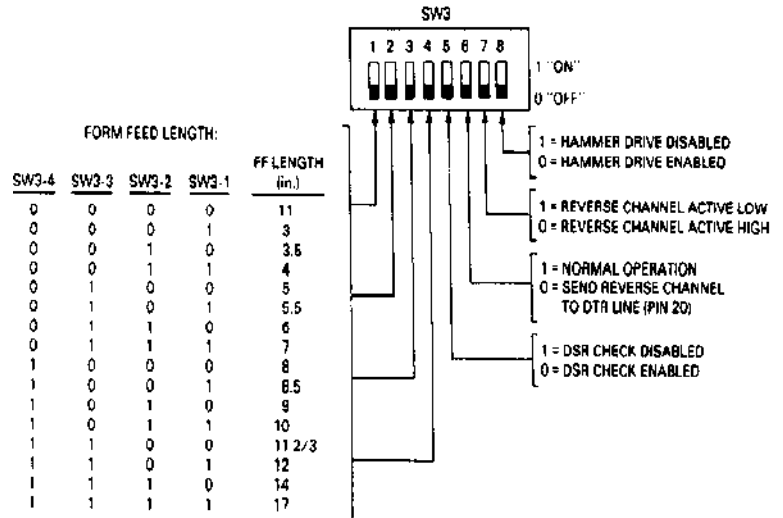


**3500R Operator Control Panel SW1 Switch Functions**

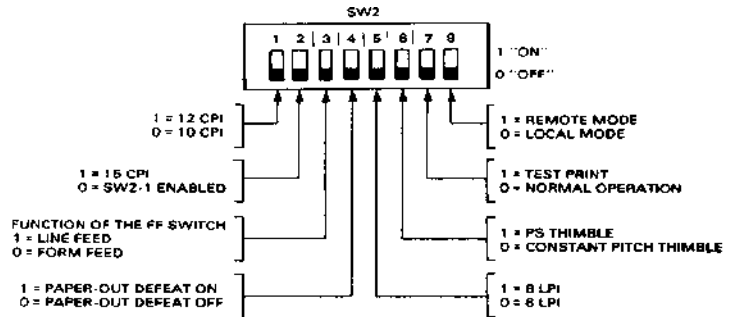


**Model 3500R Operator Control Panel**

**3500R G9PAS-001 PCB SW1 Switch Functions**

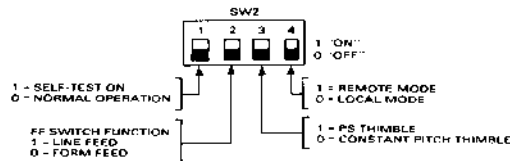


**3500R G9PAS-001 PCB SW3 Switch Functions**

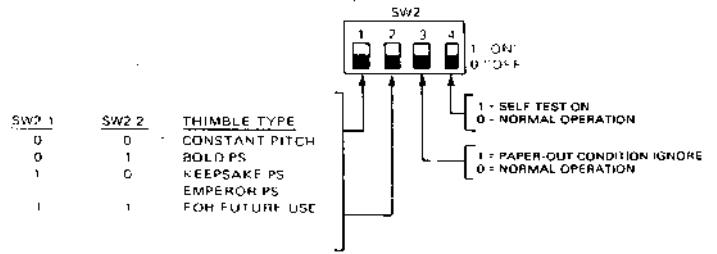


NOTE: WHEN THE MODEL 3500R HAS AN OPERATOR CONTROL PANEL OPTION, ALL OF THESE SWITCHES MUST BE OFF.

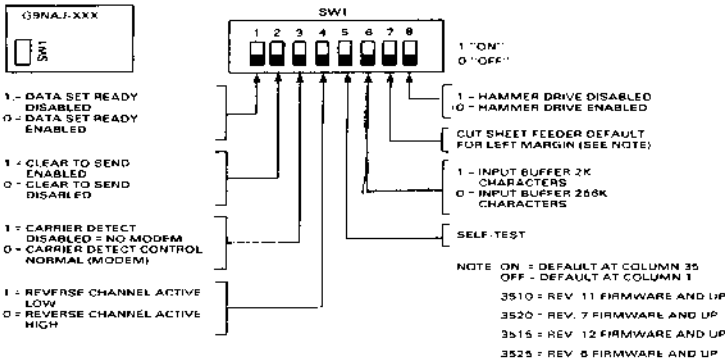
**3500R G9PAS-001 PCB SW2 Switch Functions**



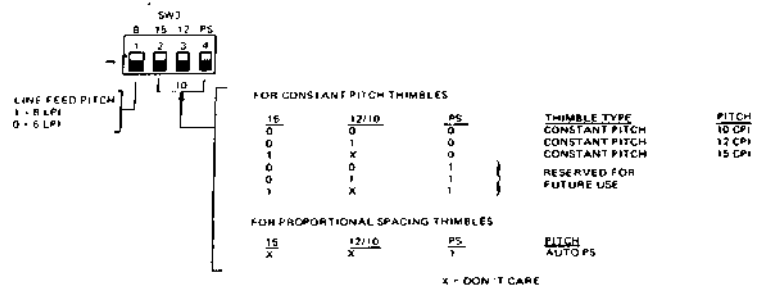
3500R Operator Control Panel SW2 Switch Functions



3510/3520 and 3515/3525 Operator Control Panel SW2 Switch Functions



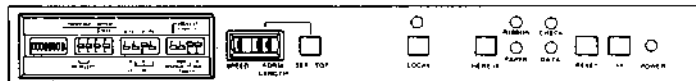
G9NAJ-xxx PCB (3510/3520 and 3515/3525) SW1



3510/3520 and 3515/3525 Operator Control Panel SW3 Switch Functions

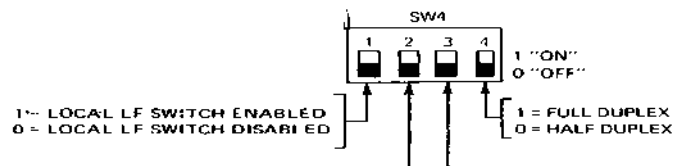


MODELS 3510, 3515



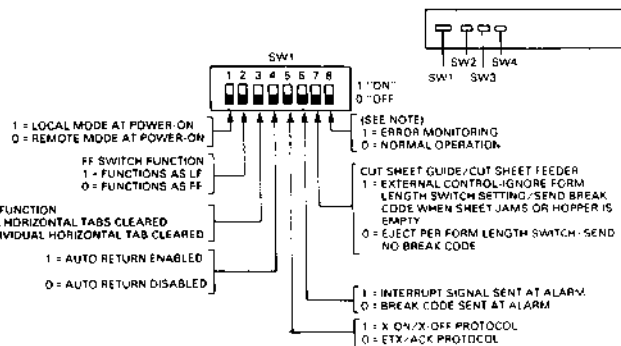
MODELS 3520, 3525

Operator Control Panels — Models 3510, 3515, 3520, 3525



PARITY SW4-2	SW4-3	RECEPTION	TRANSMISSION
0	0	PARITY CHECK OFF	MARK
1	0	PARITY CHECK OFF	MARK
0	1	ODD	ODD
1	1	EVEN	EVEN

3510/3520 and 3515/3525 Operator Control Panel SW4 Switch Functions



MODELS 3510, 3515



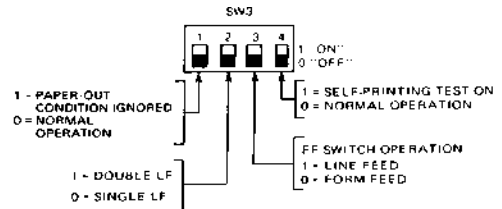
MODELS 3520, 3525

NOTE THE BREAK SWITCH IS NOT ON THE OPERATOR CONTROL PANEL OF SPINWRITER MODELS 3520 AND 3525

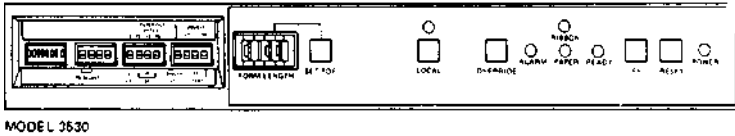
Operator Control Panels — Models 3510, 3515, 3520, 3525

BAUD RATE

POSITION	BAUD RATE
0	110
.1	150
.2	200
.3	300
.4	600
.5	1200
.6	2400
.7	4800
.8	
.9	9600

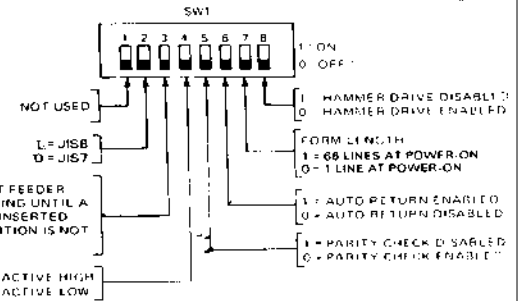
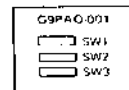


3530 Operator Control Panel SW3 Switch Functions

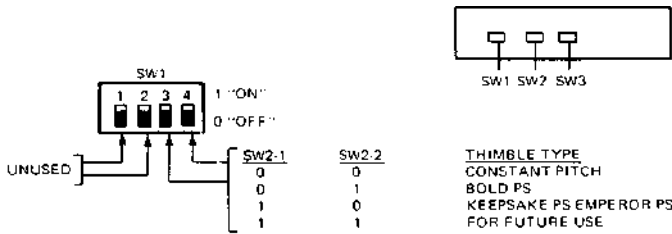


MODEL 3530

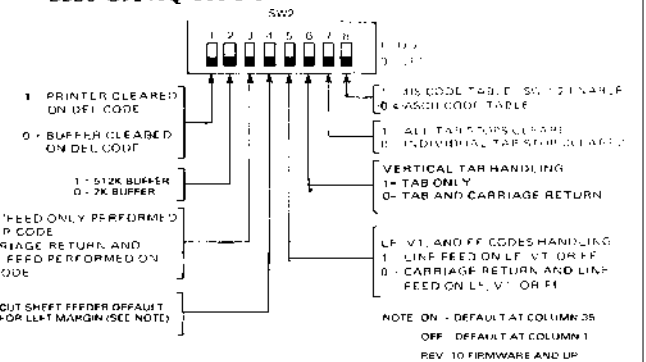
3530 Operator Control Panel



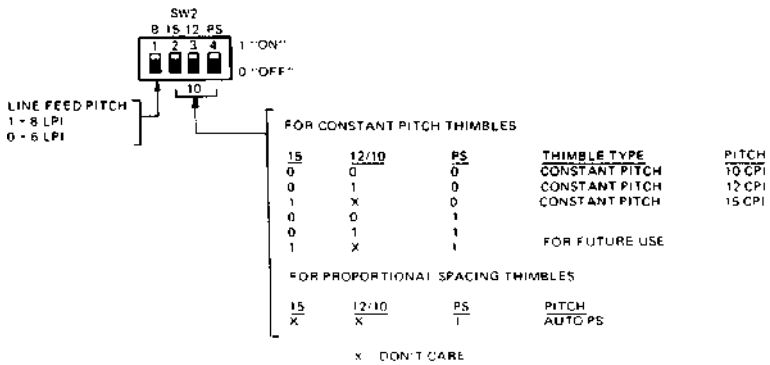
3530 G9PAQ-001 PCB SW1 Switch Functions



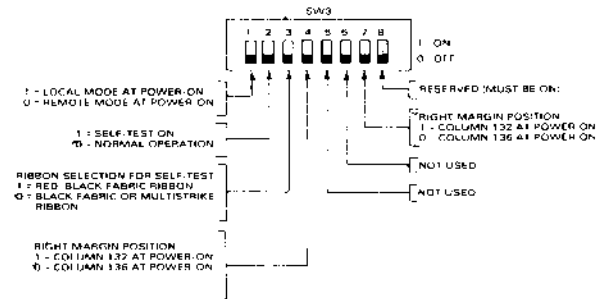
3530 Operator Control Panel SW1 Switch Functions



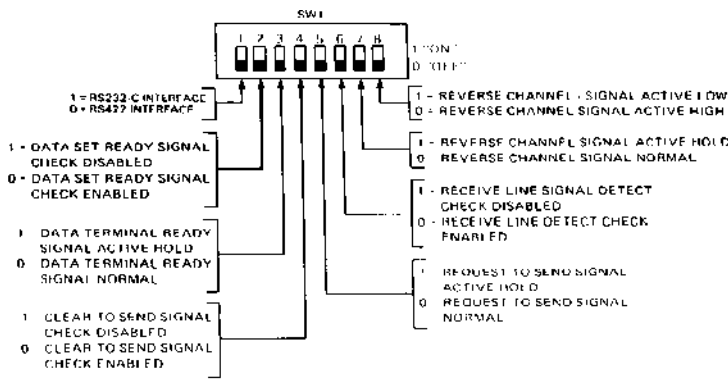
3530 G9PAQ-001 PCB SW2 Switch Functions



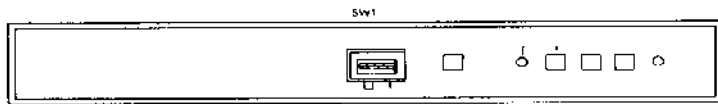
3530 Operator Control Panel SW2 Switch Functions



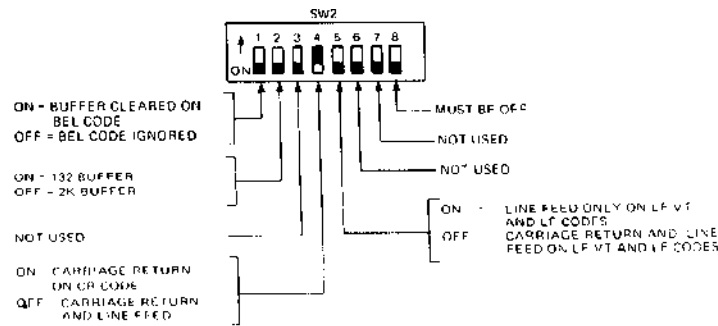
3530 G9PAQ-001 PCB SW3 Switch Functions



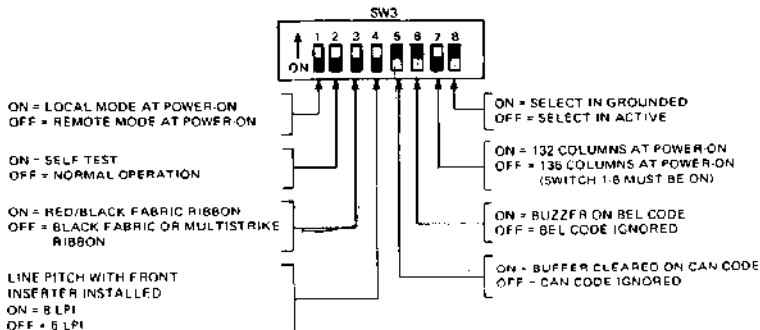
G9RKY (RS-422 Option) PCB, SW1 Switch Functions



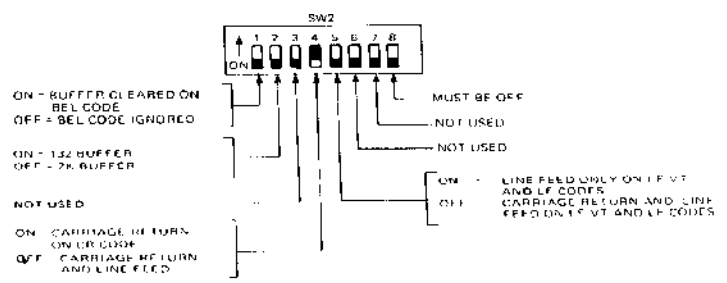
3550 Operator Control Panel



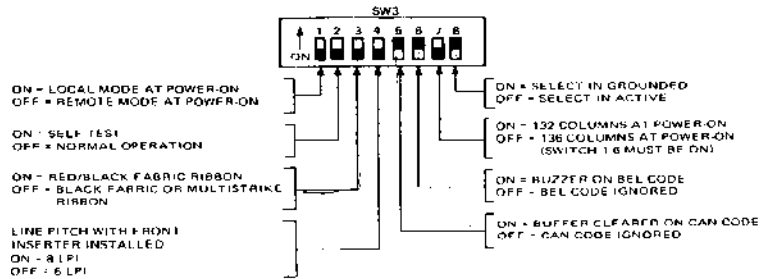
3550 G9PAQ-002 PCB SW2 Switch Functions



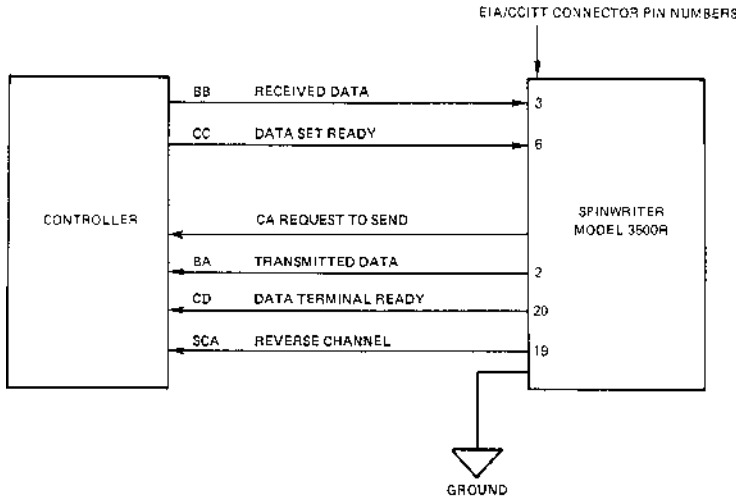
3550 G9PAQ-002 PCB SW3 Switch Functions



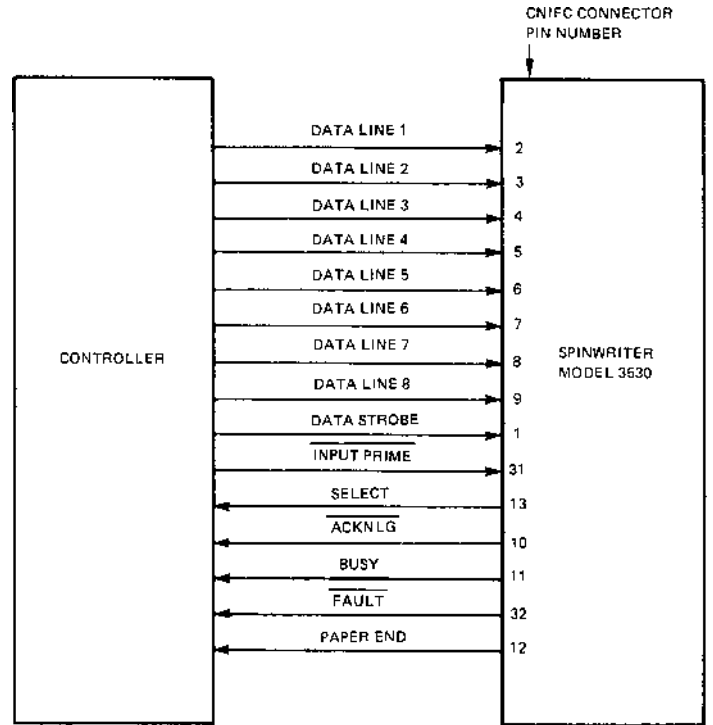
3550 G9PAQ-002 PCB SW2 Switch Functions



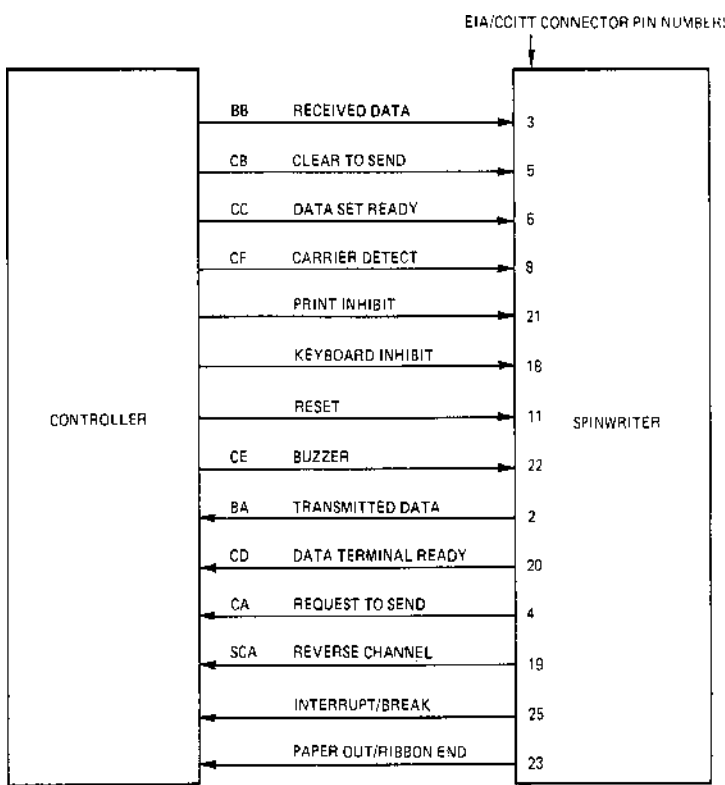
3550 G9PAQ-002 PCB SW3 Switch Functions



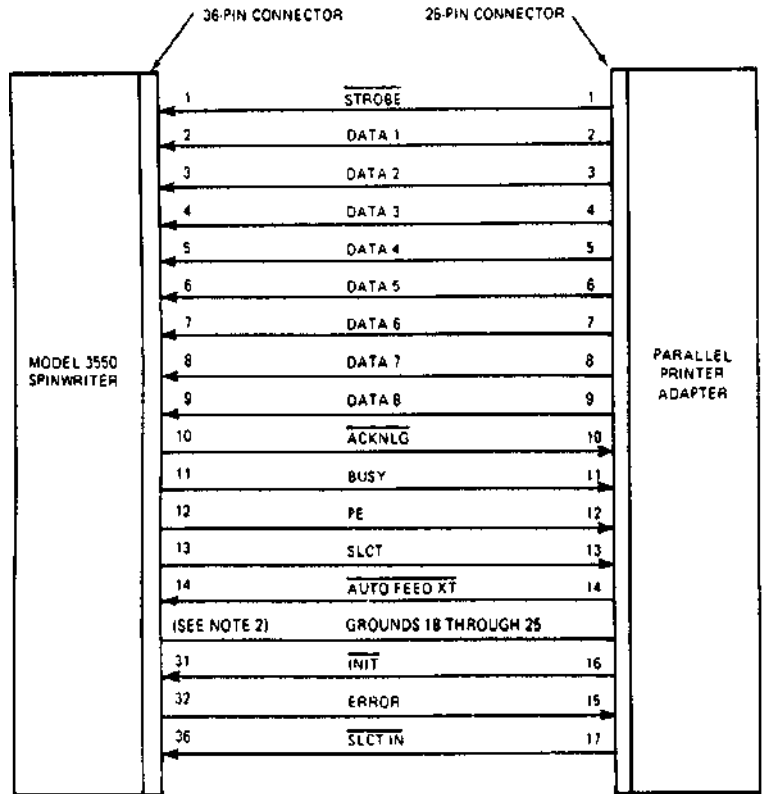
Simplified RS-232-C Interface (Model 3500R)



Parallel Interface (Model 3530)

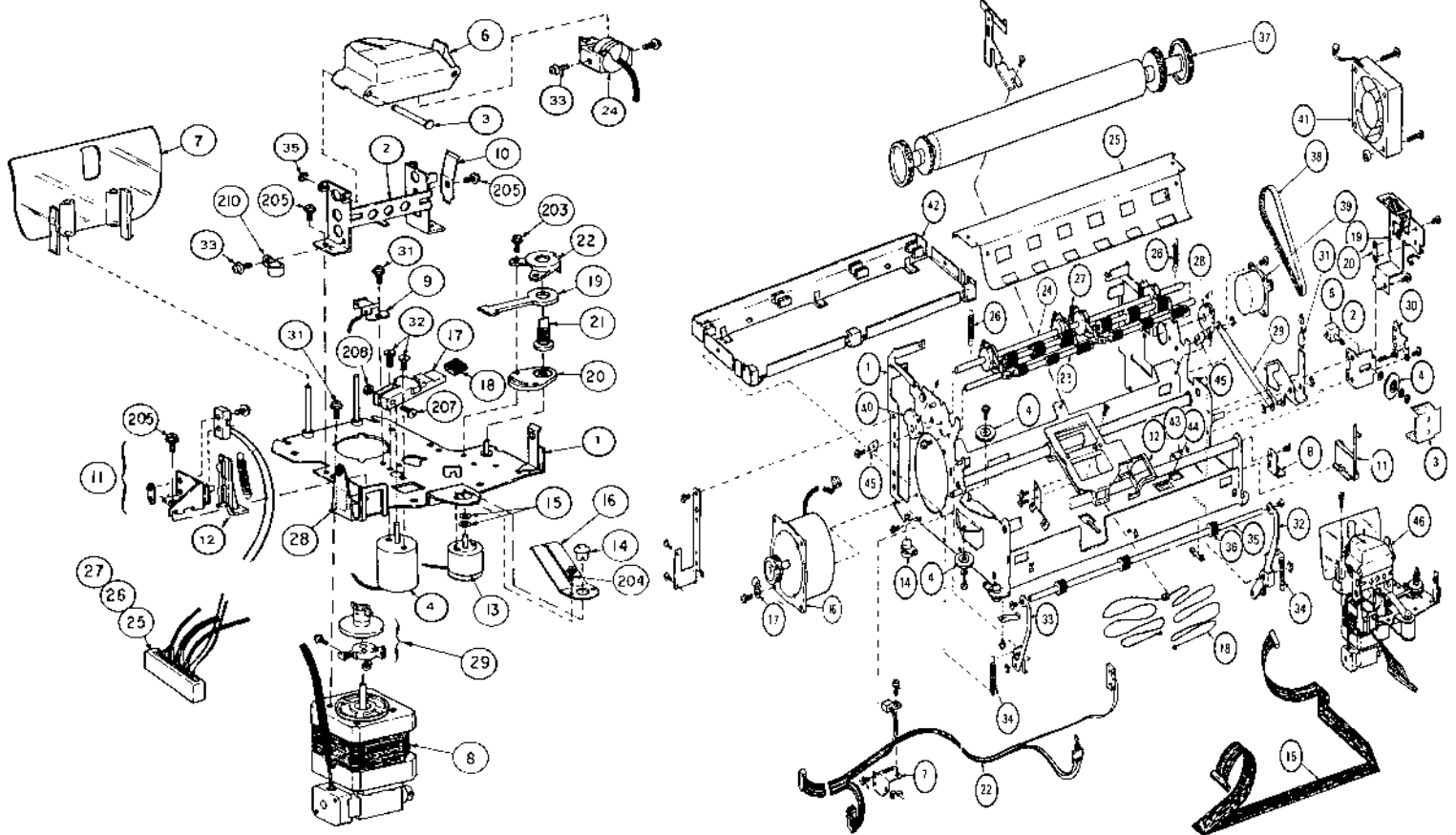


Serial Interface (Models 3510/3520 and 3515/3525)



NOTES

1	Carriage Frame	136-741461-A	1	Frame Assembly	136-741365-A
2	Hammer Bracket	136-741466-A	2	Pulley Bracket (R)	136-741338-A
3	Hammer Support Shaft	136-741467-A	3	Pulley Cover	136-741366-A
4	Ribbon Feed Magnet	136-741468-A	4	Guide Pulley	803-020001-A
6	Hammer Cover	136-741472-A	5	Special Screw	136-722887-A
7	Card Holder (Standard)	136-741473-A	7	SP Sensor Bracket	136-741361-A
	Card Holder (Demand Document Tractor)	136-746608-A	8	Hammer Switch Bracket	136-741362-A
	Card Holder (Front Inserter)	136-740724-A	11	Cable Guide	136-741342-A
8	Selection Motor	136-741474-A	12	Cable Clamp (CR)	136-741337-A
9	Pickup Assembly	136-741475-A	14	Rubber Foot	136-741345-A
10	Hammer Lock Spring	136-741479-A	15	Carriage Cable Ass'y	136-741346-A
11	Switch Assembly	136-741480-A	16	Spacing Motor Ass'y	136-741347-A
12	Ribbon End Feeler	136-741482-A	17	Nylon Clip (HP3N)	803-070031-003A
13	Solenoid	136-741490-A	18	Wire Rope Ass'y	136-741350-001A
14	Solenoid Cap	136-741491-A	19	Cover Switch Bracket	136-741352-A
15	Solenoid Spacer	136-741492-A	20	Screw Plate	136-741485-A
16	Ribbon Change Spring	136-741493-A	22	Sensor Cable Ass'y	136-741363-A
17	Ribbon Feed Gear	136-741494-A	23	Pressure Roller Ass'y	136-741391-A
18	Rubber Stopper	136-741495-A	24	Pressure Rest Cam	136-741431-A
19	Ribbon Feed Arm	136-741496-A	25	Paper Guide	136-747802-A
20	Ribbon Clutch Base	136-741497-A	26	Spring Paper Guide	136-741404-A
21	Ribbon Feed Clutch Ass'y	136-741498-B	27	Spring Pressure Plate	136-741405-A
22	Ribbon Clutch Cover	136-741502-A	28	Reset Arm	136-741400-A
24	Print Hammer Ass'y	136-034857-C	29	Link, Reset Arm	136-741406-A
29	Thimble Mount Unit	136-741514-C	30	Release Cam Detent Spring	136-741407-A
30	Protection Bracket (R)	136-741519-A	31	Release Cam	136-741408-A
31	Protection Bracket (L)	136-741523-A	32	Right Bail Arm	136-741412-B
32	Spring Holder	136-741520-A	33	Left Bail Arm	136-747807-A
33	Spring	136-741521-A	34	Spring, Bail Arm	136-741417-A
34	Spring (RF)	136-741528-A	35	Bail Shaft	136-747805-A
36	Print Masks	808-863310-A	36	Bail Roller	808-805000-A
			37	Platen Assembly (See Figure 6-29 for Breakdown)	136-035194-001A
			38	Timing Belt	808-805049-001A
			39	Line Feed Motor	136-741426-A
			40	Insertion Switch Cam	136-741429-A
			41	Fan	136-741368-A
			42	Power Chassis Ass'y	136-741369-A
			43	Frame Ground Plate (A)	136-741375-001A
			44	Frame Ground Plate (B)	136-741376-A
			45	Platen Lock Plate	136-741343-A
			46	Carriage Unit	136-034856-A





3550 codes  
Quick Reference Control Codes Table

CONTROL CODE	EQUIVALENTS		DEFINITION	FUNCTION
	HEX	DECIMAL		
	LPRINT CHR\$(&H...)	LPRINT CHR\$(...)		
NUL	00	00	Null	Terminates tab selection sequences (see "Escape Sequences").
STX	02	02	Start of Text	Accesses the second font on thimbles with more than 94 characters.
ETX	03	03	End of Text	Cancels STX.
BEL	07	07	Bell	Sounds the buzzer.
HT	09	09	Horizontal Tab	Moves the carriage to the next horizontal tab stop.
LF	0A	10	Line Feed	Performs one line feed.
VT	0B	11	Vertical Tab	Advances to the next vertical tab.
FF	0C	12	Form Feed	Advances to the next top of form.
CR	0D	13	Carriage Return	Returns the carriage to the left margin.
SO	0E	14	Shift Out	Sets double-spaced characters (5 pitch).
SI	0F	15	Shift In	Sets 15 pitch.
DCI	11	17	Device Control I	Selects the printer.

ESC CODE AND ASCII CONTROL CHARACTER	CONTROL CHARACTER EQUIVALENTS		FUNCTION
	HEX CHR\$(&H...)	DECIMAL CHR\$(...)	
	LPRINT CHR\$(27);"..."; or CHR\$(&H1B);"..."		
ESC (	28	40	Sets automatic bidirectional print.
ESC )	29	41	Cancels automatic bidirectional print.
ESC :	3A	58	Performs one-half line feed
ESC ;	3B	59	Performs reverse half line feed
ESC -	2D	45	Sets automatic underscore
ESC ^	27	39	Cancels automatic underscore
ESC &	26	38	Clears all word processing modes
ESC	5B	91	Performs no carriage return on line feed, vertical tab, and form feed.
ESC ~	5E	94	Performs an automatic carriage return on line feed, vertical tab, and form feed codes.
ESC NA	5C, 41	92, 65	Selects hopper 1 of the cut sheet feeder. Selects tractor section of the front inserter.
ESC NB	5C, 42	92, 66	Selects hopper 2 of the cut sheet feeder. Selects inserter section of the front inserter.
ESC NE	5C, 45	92, 69	Performs eject and insert with the cut sheet feeder. Performs insert on the front inserter.
ESC NF	5C, 46	92, 70	Performs eject with the cut sheet feeder. Performs eject on the front inserter.
ESC #A	23, 41	35, 65	Initiates the printer.
ESC #P	23, 50	35, 80	Disables the print hammer
ESC \$A	24, 41	36, 65	Automatically centers text
ESC \$B	24, 42	36, 66	Automatically justifies text.

Quick Reference Escape Sequences Table (cont'd)

ESC CODE AND ASCII CONTROL CHARACTER	CONTROL CHARACTER EQUIVALENTS		FUNCTION
	HEX CHR\$(&H...)	DECIMAL CHR\$(...)	
	LPRINT CHR\$(27);"..."; or CHR\$(&H1B);"..."		
ESC % (n)	25 (n)	37 (n)	Sets spacing offset.
ESC =	3D	61	Selects the power-on defaults (10 pitch, 132/136 columns, 6 lpi).
ESC ] (@-O)	5D (40-4F)	93 (64-79)	Sets a horizontal motion index (HMI) of 0/120 to 15/120 inch.
ESC *	2A	42	Selects the graphics thimble.
ESC +	2B	43	Cancels the graphics thimble.
ESC ?	3F	63	Initiates loading for RAM table.
ESC @	40	64	Ends loading for RAM thimble table.
ESC <	3C	60	Disables SI and ESC SI.
ESC >	3E	62	Cancels ESC <.

ESC CODE AND ASCII CONTROL CHARACTER	CONTROL CHARACTER EQUIVALENTS		FUNCTION
	HEX CHR\$(&H...)	DECIMAL CHR\$(...)	
	LPRINT CHR\$(27);"..."; or CHR\$(&H1B);"..."		
ESC H	48	72	Cancels automatic shadow printing.
ESC I	49	73	Sets character spacing at 12 pitch.
ESC J	4A	74	Sets the right margin at the current carriage position.
ESC K	4B	75	Cancels ESC J.
ESC L	4C	76	Cancels program mode.
ESC M	4D	77	Sets the left margin at the current carriage position.
ESC N	4E	78	Sets the center margin at the current carriage position.
ESC O	4F	79	Clears left and center margins.
ESC P	50	80	Sets program mode.
ESC Q	51	81	Performs a line backspace.
ESC R	52	82	Sets automatic proportional spacing.
ESC S	53	83	Sets character spacing at 10 pitch.
ESC T	54	84	Cancels automatic proportional spacing.
ESC U (n)	55 (n)	85 (n)	Sets the left margin at the (n)th column.
ESC V (n)	56 (n)	86 (n)	Sets the center margin at the (n)th column.
ESC W (n)	57 (n)	87 (n)	Sets the right margin at the (n)th column.
ESC X (n)	58 (n)	88 (n)	Sets the amount of ribbon feed for (n) steps.
ESC . (period)	2E	46	Sets graphics mode.
ESC /	2F	47	Cancels graphics mode.

Quick Reference Escape Sequences Table

ESC CODE AND ASCII CONTROL CHARACTER	CONTROL CHARACTER EQUIVALENTS		FUNCTION
	LPRINT CHR\$(27);"..." or CHR\$(&H1B);"..."	HEX CHR\$(&H...) DECIMAL CHR\$(...)	
ESC 0	30	48	Sets the line spacing at 8 lpi.
ESC 1	31	49	Sets the line spacing at 5/48 inch (about 10 lpi).
ESC 2	32	50	Sets the line spacing at 6 lpi.
ESC 3	33	51	Prints in red.
ESC 4	34	52	Prints in black.
ESC 5	35	53	Selects the RAM thimble.
ESC 7	37	55	Performs reverse line feed.
ESC 8	38	56	Overrides paper-out alarms.
ESC 9	39	57	Cancels ESC 8.
ESC SI	0F	15	Sets character spacing at f pitch (condensed print).
ESC SO	0E	14	Sets character spacing at 5 pitch (double-spaced print).
ESC A (n) ESC 2	41 (n)	65 (n)	Sets a vertical motion index (VMI) of 0/48 to 57/48 inch.
ESC B (n) NUL	42 (n)	66 (n)	Sets vertical tab stops.
ESC C (n)	43 (n)	67 (n)	Sets forms length per page.
ESC D (n) NUL	44 (n)	68 (n)	Sets horizontal tab stops.
ESC E	45	69	Sets automatic double-strike printing.
ESC F	46	70	Cancels automatic double-strike printing.
ESC G	47	71	Sets automatic shadow printing.

Models 3510/3520, 3500R, and 3530 Control Code and Escape Sequence Instruction Set

RECEIVED ASCII CHARACTERS	INSTRUCTION
Control Codes (not printed)	
ETX (not on Model 3530)	<u>End of Text</u> - The last character transmitted in batch (ETX/ACK protocol).
ACK (not on Model 3530)	<u>Acknowledge - Transmitted</u> by Spinwriter, meaning ready to print (ETX/ACK protocol).
BEL (not on Model 3530 or 3500R)	<u>Bell</u> - Sounds audible alarm.
BS	<u>Backspace</u> - In normal mode, reverses carriage position by one character space. In program mode, reverses carriage position a distance equal to the last forward spacing instruction. In graphics mode, reverses carriage position 1/60-inch.
HT	<u>Horizontal Tab</u> - Advances carriage to next horizontal tab set.
VT	<u>Vertical Tab</u> - Advances paper to next vertical tab set.
LF	<u>Line Feed</u> - Advances paper one line.
FF	<u>Form Feed</u> - Feeds paper to top of next form.
CR	<u>Carriage Return</u> - Moves carriage to left margin and (the LOCAL LF DIP switch is on) feeds paper one line.
SO	<u>Shift Out</u> - Interprets characters that follow to access special characters on print font.
SI	<u>Shift In</u> - Resumes normal ASCII coding.
DC1 (not on Model 3530)	<u>X-ON - Transmitted</u> by Spinwriter, meaning ready to print (X-ON/X-OFF protocol).

Models 3515/3525 Control Code and Escape Sequence Instruction Set (cont'd)

Models 3510/3520, 3500R, and 3530 Control Code and Escape Sequence Instruction Set (cont'd)

RECEIVED ASCII CHARACTERS	INSTRUCTION
Carriage Movement Escape Codes (cont'd)	
ESC 9	<u>Set Left Margin</u> - Sets left margin at current carriage position.
ESC HT (n)	<u>Absolute Horizontal Tab</u> - Moves carriage to position specified by third character, which is an ASCII character whose decimal value indicates the print position desired (see Table 4-8).  NOTE: The Models 3515/3525 can absolute tab to only the first 126 of 203 columns (at 15 cpi).
ESC US (n)	<u>Set Horizontal Motion Index</u> - In normal mode, sets character spacing to distance specified by third character (from 0 to 25/24th inches), which is an ASCII character whose decimal value is one greater than the number of increments the carriage moves (see Table 4-8). (This code overrides the 10/12/15 pitch DIP switch setting; see Appendix A.)
Ribbon Control	
ESC A	<u>Print in red</u> - Prints in red.
ESC B	<u>Print in black</u> - Prints in black.
Paper Movement Escape Codes	
ESC LF	<u>Reverse Line Feed</u> - Moves paper down one line.
ESC U	<u>Half Line Feed</u> - Moves paper up one half line.
ESC D	<u>Reverse Half Line Feed</u> - Moves paper down one half line.
ESC VT (n)	<u>Absolute Vertical Tab</u> - Moves paper up or down to line specified by third character, which is an ASCII character whose decimal value is equal to the number of lines on the form to be reached (see Table 4-8).

RECEIVED ASCII CHARACTERS	INSTRUCTION
Control Codes (cont'd)	
DC3 (not on Model 3530)	<u>X-OFF</u> - Transmitted by Spinwriter, meaning not ready to print (X-ON/X-OFF protocol).
DEL (not on Model 3530)	<u>DELETE</u> - Clears buffer or clears printer, controlled by DEL DIP switch (see Appendix A).
ESC	<u>Escape Prefix</u> - see ESC codes in this table.
SP	<u>Space</u> - In normal mode, moves carriage in printing direction one character distance. In program mode, moves carriage distance specified by next byte. In graphics mode, moves carriage position 1/60-inch.
Carriage Movement Escape Codes	
ESC 1	<u>Set Horizontal Tab</u> - Sets a horizontal tab at the current carriage position.
ESC 2	<u>Clear Horizontal Tab</u> - If the clear horizontal tab DIP switch is off (see Appendix A), clears the horizontal tab set at the current position. If the switch is on, clears all set horizontal tabs.
ESC 7 (not on Model 3500R)	<u>Clear All Tabs and Forms Length</u> - Clears all set horizontal tabs, vertical tabs, and forms length.
ESC = (not on Model 3500R)	<u>Read and Store Switch Settings</u> - Reads settings of spacing DIP switch (10, 12, 15, FS) and line feed DIP switch (6 or 8) (see Appendix A).
ESC <	<u>Reverse Print</u> - Prints from right to left.
ESC >	<u>Forward Print</u> - Prints from left to right.
ESC ( (not on Model 3500R)	<u>Auto Bidirectional Print On</u> - Prints in both directions if conditions permit.

Models 3510/3520, 3500R, and 3530 Control Code and Escape Sequence Instruction Set (cont'd)

Models 3515/3525 Tab Index and Remote Forms Length

RECEIVED ASCII CHARACTERS	INSTRUCTION
Carriage Movement Escape Codes (cont'd)	
ESC ) (not on Model 3500R)	<u>Auto Bidirectional Print Off</u> - Prints only from left to right.
ESC J or j	<u>Set Right Margin</u> - Sets right margin at current carriage position.
ESC K or k	<u>Reset Right Margin</u> - Clears any preset right margin and resets to extreme right print position.
ESC M or m	<u>Set Left Margin</u> - Sets left margin at current carriage position.
ESC O or o	<u>Reset Left Margin</u> - Clears any preset left margin and resets to extreme left print position.
ESC P (n)	<u>Absolute Horizontal Tab</u> - Moves carriage to position specified by second and third characters (see Table 4-3).
ESC ] (n)	<u>Set Space Pitch</u> - In normal mode, sets character spacing to distance specified by third character, from 0 to 15/120-inch (overrides 10/12/15/PS pitch DIP switch setting on operator control panel) (see Table 4-2).
Ribbon Control Escape Codes	
ESC 3	<u>Print in red</u> - Prints in red.
ESC 4	<u>Print in black</u> - Prints in black.
Paper Movement Escape Codes	
ESC 5	<u>Set Vertical Tab</u> - Sets an individual vertical tab at the current paper position.
ESC 6	<u>Clear Vertical Tab</u> - Clears the individual vertical tab set at the current paper position.

Models 3510/3520, 3500R, and 3530 Control Code and Escape Sequence Instruction Set (cont'd)

RECEIVED ASCII CHARACTERS	INSTRUCTION
Paper Movement Escape Codes (cont'd)	
ESC 7	<u>Clear All Tabs and Forms Length</u> - Clears all set vertical tabs, horizontal tabs, and form length. Sets FF to maximum (99) and present paper position at TOF.
ESC =	<u>Read and Store Switch Settings</u> - Reads settings of line feed DIP switch (6 or 8) and spacing switch (10/12/15/PS).
ESC S (Model 3530 only)	<u>Read and Store Spacing Switch Settings</u> - Reads spacing switch settings and cancels automatic proportional spacing.
ESC ?	<u>Enter Format Mode</u> - Enters a mode where all paper movement control codes are inhibited from moving the platen (LF, VT, FF, and Reverse LF). (This mode permits setting vertical tabs and TOF without moving paper.)
ESC @ or \	<u>Exit Format Mode</u>
ESC 9	<u>Reverse Line Feed</u> - Moves paper down one line.
ESC :	<u>Half Line Feed</u> - Moves paper up one-half line.
ESC ;	<u>Reverse Half-Line Feed</u> - Moves paper down one-half line.
ESC L or l	<u>Set Form Length</u> - Sets the number of lines just fed to be form length and the current vertical position as top of form.
ESC Z (n)	<u>Relative Vertical Tab Up</u> - Moves paper up (forward) number of lines specified (0 to 63) by second and third characters (see Table 4-4).
ESC X (n)	<u>Relative Vertical Tab Down</u> - Moves paper down (reverse) number of lines specified (0 to 63) by second and third characters (see Table 4-4).

		ESC																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
1st	2nd	Absolute Horizontal Tab HT				Remote Form Length FF				Absolute Vertical Tab VT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
3rd	1	SOH	SO	ESC	40	53	66	79	92	105	118	131	144	157	170	183	196	209	222	235	248	261	274	287	300	313	326	339	352	365	378	391	404	417	430	443	456	469	482	495	508	521	534	547	560	573	586	599	612	625	638	651	664	677	690	703	716	729	742	755	768	781	794	807	820	833	846	859	872	885	898	911	924	937	950	963	976	989	1002	1015	1028	1041	1054	1067	1080	1093	1106	1119	1132	1145	1158	1171	1184	1197	1210	1223	1236	1249	1262	1275	1288	1301	1314	1327	1340	1353	1366	1379	1392	1405	1418	1431	1444	1457	1470	1483	1496	1509	1522	1535	1548	1561	1574	1587	1600	1613	1626	1639	1652	1665	1678	1691	1704	1717	1730	1743	1756	1769	1782	1795	1808	1821	1834	1847	1860	1873	1886	1899	1912	1925	1938	1951	1964	1977	1990	2003	2016	2029	2042	2055	2068	2081	2094	2107	2120	2133	2146	2159	2172	2185	2198	2211	2224	2237	2250	2263	2276	2289	2302	2315	2328	2341	2354	2367	2380	2393	2406	2419	2432	2445	2458	2471	2484	2497	2510	2523	2536	2549	2562	2575	2588	2601	2614	2627	2640	2653	2666	2679	2692	2705	2718	2731	2744	2757	2770	2783	2796	2809	2822	2835	2848	2861	2874	2887	2900	2913	2926	2939	2952	2965	2978	2991	3004	3017	3030	3043	3056	3069	3082	3095	3108	3121	3134	3147	3160	3173	3186	3199	3212	3225	3238	3251	3264	3277	3290	3303	3316	3329	3342	3355	3368	3381	3394	3407	3420	3433	3446	3459	3472	3485	3498	3511	3524	3537	3550	3563	3576	3589	3602	3615	3628	3641	3654	3667	3680	3693	3706	3719	3732	3745	3758	3771	3784	3797	3810	3823	3836	3849	3862	3875	3888	3901	3914	3927	3940	3953	3966	3979	3992	4005	4018	4031	4044	4057	4070	4083	4096	4109	4122	4135	4148	4161	4174	4187	4200	4213	4226	4239	4252	4265	4278	4291	4304	4317	4330	4343	4356	4369	4382	4395	4408	4421	4434	4447	4460	4473	4486	4499	4512	4525	4538	4551	4564	4577	4590	4603	4616	4629	4642	4655	4668	4681	4694	4707	4720	4733	4746	4759	4772	4785	4798	4811	4824	4837	4850	4863	4876	4889	4902	4915	4928	4941	4954	4967	4980	4993	5006	5019	5032	5045	5058	5071	5084	5097	5110	5123	5136	5149	5162	5175	5188	5201	5214	5227	5240	5253	5266	5279	5292	5305	5318	5331	5344	5357	5370	5383	5396	5409	5422	5435	5448	5461	5474	5487	5500	5513	5526	5539	5552	5565	5578	5591	5604	5617	5630	5643	5656	5669	5682	5695	5708	5721	5734	5747	5760	5773	5786	5799	5812	5825	5838	5851	5864	5877	5890	5903	5916	5929	5942	5955	5968	5981	5994	6007	6020	6033	6046	6059	6072	6085	6098	6111	6124	6137	6150	6163	6176	6189	6202	6215	6228	6241	6254	6267	6280	6293	6306	6319	6332	6345	6358	6371	6384	6397	6410	6423	6436	6449	6462	6475	6488	6501	6514	6527	6540	6553	6566	6579	6592	6605	6618	6631	6644	6657	6670	6683	6696	6709	6722	6735	6748	6761	6774	6787	6800	6813	6826	6839	6852	6865	6878	6891	6904	6917	6930	6943	6956	6969	6982	6995	7008	7021	7034	7047	7060	7073	7086	7099	7112	7125	7138	7151	7164	7177	7190	7203	7216	7229	7242	7255	7268	7281	7294	7307	7320	7333	7346	7359	7372	7385	7398	7411	7424	7437	7450	7463	7476	7489	7502	7515	7528	7541	7554	7567	7580	7593	7606	7619	7632	7645	7658	7671	7684	7697	7710	7723	7736	7749	7762	7775	7788	7801	7814	7827	7840	7853	7866	7879	7892	7905	7918	7931	7944	7957	7970	7983	7996	8009	8022	8035	8048	8061	8074	8087	8100	8113	8126	8139	8152	8165	8178	8191	8204	8217	8230	8243	8256	8269	8282	8295	8308	8321	8334	8347	8360	8373	8386	8399	8412	8425	8438	8451	8464	8477	8490	8503	8516	8529	8542	8555	8568	8581	8594	8607	8620	8633	8646	8659	8672	8685	8698	8711	8724	8737	8750	8763	8776	8789	8802	8815	8828	8841	8854	8867	8880	8893	8906	8919	8932	8945	8958	8971	8984	8997	9010	9023	9036	9049	9062	9075	9088	9101	9114	9127	9140	9153	9166	9179	9192	9205	9218	9231	9244	9257	9270	9283	9296	9309	9322	9335	9348	9361	9374	9387	9400	9413	9426	9439	9452	9465	9478	9491	9504	9517	9530	9543	9556	9569	9582	9595	9608	9621	9634	9647	9660	9673	9686	9699	9712	9725	9738	9751	9764	9777	9790	9803	9816	9829	9842	9855	9868	9881	9894	9907	9920	9933	9946	9959	9972	9985	9998

TAB POSITION ON REMOTE FORMS LENGTH SETTING

### Models 3510/3520, 3500R, and 3530 Spacing and Forms Advance Control

		Spacing		Form Advance	
1st	2nd	3rd	Inches	3rd	Inches
ESC	)	@	0	P	1/48
		A	1/120	Q	2/48
		B	2/120	R	3/48
		C	3/120	S	4/48
		D	4/120	T	5/48
		E	5/120	U	6/48 (1/8)
		F	6/120	V	7/48
		G	7/120	W	8/48 (1/8)
		H	8/120	X	9/48
		I	9/120	Y	10/48
		J	10/120 (1/12)	Z	11/48
		K	11/120	[	12/48
		L	12/120 (1/10)	\	13/48
		M	13/120	]	14/48
		N	14/120	^	15/48
		O	15/120	_	16/48

### Model 3515/3525 Motion Index

		ESC																																																																																																																																																																								
1st	2nd	Vertical Motion Index RS								Horizontal Motion Index US																																																																																																																																																																
3rd	0	SOH	SO	ESC	40	53	66	79	92	105	118	131	144	157	170	183	196	209	222	235	248	261	274	287	300	313	326	339	352	365	378	391	404	417	430	443	456	469	482	495	508	521	534	547	560	573	586	599	612	625	638	651	664	677	690	703	716	729	742	755	768	781	794	807	820	833	846	859	872	885	898	911	924	937	950	963	976	989	1002	1015	1028	1041	1054	1067	1080	1093	1106	1119	1132	1145	1158	1171	1184	1197	1210	1223	1236	1249	1262	1275	1288	1301	1314	1327	1340	1353	1366	1379	1392	1405	1418	1431	1444	1457	1470	1483	1496	1509	1522	1535	1548	1561	1574	1587	1600	1613	1626	1639	1652	1665	1678	1691	1704	1717	1730	1743	1756	1769	1782	1795	1808	1821	1834	1847	1860	1873	1886	1899	1912	1925	1938	1951	1964	1977	1990	2003	2016	2029	2042	2055	2068	2081	2094	2107	2120	2133	2146	2159	2172	2185

Models 3515/3525 Control Code and Escape Sequence Instruction Set (cont'd)

RECEIVED ASCII CHARACTERS	INSTRUCTION
Graphics Mode	
ESC 3	<u>Enter Graphics Mode</u> - Sets a mode where carriage movement does not occur automatically when a character is printed; movements of the carriage in response to space and backspace, and movements of paper in response to line feed, are re-defined.
ESC 4	<u>Exit Graphics Mode</u>
Remote Diagnostics	
ESC SUB I	<u>Initialize Spinwriter</u> - Executes an initialize sequence same as normally occurs at Spinwriter power on. Erases tab settings.
ESC SUB R	<u>Reset</u> - Executes reset sequence same as normally occurs when pressing RESET switch.
ESC SUB 1	<u>Request Status Word 1</u> - Sends diagnostic/status word 1.
ESC SUB 2	<u>Request Status Word 2</u> - Sends diagnostic/status word 2.
ESC SUB 3	<u>Request Status Word 3</u> - Sends diagnostic/status word 3.
ESC 7	<u>Suppress Printing</u> - (Clears with carriage return.)
Nonvolatile RAM (Optional)	
ESC (xxx... xx ESC)	<u>"Here is" Message</u> - allows you to program a message of up to 32 characters for polled network operations.

Models 3515/3525 Control Code and Escape Sequence Instruction Set (cont'd)

RECEIVED ASCII CHARACTERS	INSTRUCTION
Word Processing Assist Group (cont'd)	
ESC X	<u>Exit All WP Modes</u> - Exits program mode, auto bold mode, auto shadow mode, auto underscore mode, auto center, and auto justify.
Dual Bin Cut Sheet Feeder Control	
ESC DC4 A	<u>Select Feeder Hopper 1</u> - Energizes Hopper 1 for feeding of next and subsequent sheets on command; de-energizes Hopper 2.
ESC DC4 B	<u>Select Feeder Hopper 2</u> - Energizes Hopper 2 for feeding of next and subsequent sheets on command; de-energizes Hopper 1.
ESC DC4 C	<u>Insert/Eject Sheets</u> - Ejects current sheet in printing position and feeds new sheet to Top of Form position from selected hopper.
ESC DC4 D	<u>Eject Sheet</u> - Ejects current sheet in printing position.
Front Inserter Control	
ESC DC4 A	<u>Select Tractor Function</u> - energizes forms tractor for printing; de-energizes sheet inserter.
ESC DC4 B	<u>Select Inserter Function</u> - energizes sheet inserter; de-energizes forms tractor.
ESC DC4 C	<u>Insert</u> - inserts sheet from inserter pocket.
ESC DC4 D	<u>Eject</u> - ejects sheet from printer; places it in inserter pocket.

Models 3515/3525 Control Code and Escape Sequence Instruction Set (cont'd)

RECEIVED ASCII CHARACTERS	INSTRUCTION
Word Processing Assist Group (cont'd)	
ESC W	<u>Enter Auto Shadow Print Mode</u> - Enters mode where all subsequent printable characters are struck twice with 1/120-inch of carriage movement between strikes and no intervening paper movement. If previously set, exits auto bold mode. (Clears with carriage return.)
ESC &	<u>Exit Auto Bold/Shadow Print Mode</u> - Exits whichever of these two modes is set. A carriage return or an "ESC X" sequence has the same function.
ESC E	<u>Enter Auto Underscore Mode</u> - Enters a mode where the subsequent character string (ending by an ESC R) is printed, the carriage is reversed to the first character in the string, then an underscore ( _ ) is printed under all characters in the string.
ESC R	<u>Exit Auto Underscore Mode</u> - Exits auto underscore mode.
ESC DC1 (n)	<u>Select Spacing Offset</u> - Adds or subtracts spacing between characters according to the next byte transmitted. (Bits 1 to 6 = spacing amount 0 to 64 units @ 1/120-inch per unit; bit 7 = sign; 1 = subtract, 0 = add; bit 8 = parity.) (Clears with carriage return.)
ESC BS	<u>Fine Backspace</u> - Backspaces (reverses) carriage by 1/120-inch.
ESC -	<u>Auto Center On</u> - Prints all subsequent characters received (until a carriage return) centered between set margins.
ESC M	<u>Auto Justifying On</u> - Expands or compresses first spacing between words then spacing between characters so that subsequent lines of characters received are printed to fit exactly between margins. If added space exceeds a specified amount, line is printed unjustified.

Models 3515/3525 Control Code and Escape Sequence Instruction Set (cont'd)

RECEIVED ASCII CHARACTERS	INSTRUCTION
Paper Movement Escape Codes (cont'd)	
ESC FF (n)	<u>Remote Forms Length Set</u> - Sets the forms length to a length specified by the third character, which is an ASCII character whose decimal value is equal to the number of lines of the forms length (see Table 4-9).
ESC RS (n)	<u>Set Vertical Motion Index</u> - Sets line feed to distance specified by third character (from 0 to 2 29/48 inches), which is an ASCII character whose decimal value is one greater than the number of increments the paper moves (see Table 4-8).
Word Processing Assist Group	
ESC P	<u>Enter Proportional Spacing Mode</u> - Disregards setting of spacing DIP switches (see Appendix A) and conditions Spinwriter for 12 epi with proportional spacing.
ESC Q	<u>Exit Proportional Spacing Mode</u> - Returns spacing control to setting of spacing switches.
ESC SO M	<u>Enter Program Mode</u> - Enters host-computer-directed proportional spacing mode when all printable character, spacing, and CAN codes are accompanied by a second byte specifying spacing pitch and (in case of printable character) hammer impression level, and where a BS code causes reverse carriage motion equal to last forward spacing command.
ESC SI	<u>Exit Program Mode</u> - An "ESC X" sequence has the same function.
ESC O	<u>Enter Auto Bold Print Mode</u> - Enters mode where all subsequent printable characters are struck twice, with no intervening carriage or paper movement. If previously set, exits auto shadow mode. (Clears with carriage return.)

Models 3510/3520, 3500R, and 3530 Control Code and Escape Sequence Instruction Set (cont'd)

Models 3510/3520, 3500R, and 3530 Control Code and Escape Sequence Instruction Set (cont'd)

RECEIVED ASCII CHARACTERS	INSTRUCTION
Paper Movement Escape Codes (cont'd)	
ESC ] (n)	<u>Set Line Pitch</u> - Sets line feed to distance specified by third character, from 1/48-inch to 16/48-inch (see Table 4-2).
Word Processing Assist Group	
ESC H (Not on Model 3500R)	<u>Enter Proportional Spacing Mode</u> - Disregards setting of spacing DIP switch (see Appendix A) and conditions Spinwriter for 12 cpi with proportional spacing.
ESC I (Not on Model 3500R)	<u>Exit Proportional Spacing Mode</u> - Returns spacing control to setting of spacing DIP switch (see Appendix A).
ESC E	<u>Enter Program Mode</u> - Enters host-computer-directed proportional spacing mode where all printable character, spacing, and CAN codes are accompanied by a second byte specifying spacing pitch and (in case of printable character) hammer impression level and where a BS code causes reverse carriage motion equal to last forward spacing command.
ESC G or & (Not & on Model 3500R)	<u>Exit Program Mode</u> - Exits the program mode.
ESC * (Not on Model 3500R)	<u>Enter Auto Bold Mode</u> - Enters mode where all subsequent printable characters are struck twice with no intervening carriage or paper movement. If previously set, exits auto shadow mode. (Clears with carriage return.)
ESC + (Not on Model 3500R)	<u>Enter Auto Shadow Mode</u> - Enters mode where all subsequent printable characters are struck twice with 1/120-inch of carriage movement between strikes and no intervening paper movement. If previously set, exits auto bold mode. (Clears with carriage return.)

RECEIVED ASCII CHARACTERS	INSTRUCTION
Dual Bin Cut Sheet Feeder Control	
ESC A	<u>Select Feeder Hopper 1</u> - Energizes Hopper 1 for feeding of next and subsequent sheets on command; de-energizes Hopper 2.
ESC B	<u>Select Feeder Hopper 2</u> - Energizes Hopper 2 for feeding of next and subsequent sheets on command; de-energizes Hopper 1.
ESC \ E	<u>Insert/Eject Sheets</u> - Ejects current sheet in printing position and feeds new sheet to top of form position from selected hopper.
ESC \ F	<u>Eject Sheet</u> - Ejects current sheet in printing position.
Front Inserter Control	
ESC A	<u>Select Tractor Function</u> - Energizes forms tractor for printing; de-energizes sheet inserter.
ESC B	<u>Select Inserter Function</u> - Energizes sheet inserter; de-energizes forms tractor.
ESC \ E	<u>Insert</u> - Inserts sheet from inserter pocket.
ESC \ F	<u>Eject</u> - Ejects sheet from printer; places it in inserter pocket.
Graphics Mode	
ESC .	<u>Enter Graphics Mode</u> - Enters a mode where carriage movement does not occur automatically when a character is printed and where movements of the carriage in response to space and backspace of 1/60-inch, and movements of paper in response to line feed are redefined.
ESC /	<u>Exit Graphics Mode</u> - Exits the graphics mode.

Models 3510/3520, 3500R, and 3530 Control Code and Escape Sequence Instruction Set (cont'd)

Models 3510/3520, 3500R, and 3530 Control Code and Escape Sequence Instruction Set (cont'd)

RECEIVED ASCII CHARACTERS	INSTRUCTION
Word Processing Assist Group (cont'd)	
ESC , (Not on Model 3500R)	<u>Exit Auto Bold or Shadow Mode</u> - Exits whichever of these two modes is set. (Note that Carriage return or "ESC &" codes also exit these modes.)
ESC - (minus sign) (Not on Model 3500R)	<u>Enter Auto Underscore Mode</u> - Enters a mode where the subsequent character string (ending by an ESC ') is printed, the carriage is reversed to the first character in the string, then an underscore ( _ ) is printed under all characters in the string.
ESC ' (Not on Model 3500R)	<u>Exit Auto Underscore Mode</u> - Exits the auto underscore mode.
ESC & (n)	<u>Select Spacing Offset</u> - Adds or subtracts spacing between characters according to the next byte transmitted. (Bits 1 to 4 = spacing amount 0 to 15 units @ 1/120th of an inch per unit; bit 5 = sign; 1 = subtract, 0 = add, bit 6 = any, bit 7 = 1, bit 8 = parity.) (Clears with carriage return.)
ESC 8 (Not on Model 3500R)	<u>Fine Backspace</u> - Backspaces (reverses) carriage by 1/120-inch.
ESC \$ A (Not on Model 3500R)	<u>Auto Center On</u> - Prints all subsequent characters received (until a carriage return) centered between set margins.
ESC \$ B (Not on Model 3500R)	<u>Auto Justify On</u> - Expands or compresses first spacing between words then spacing between characters so that subsequent lines of characters received are printed to fit exactly between margins. If added space exceeds a specified amount, line is printed unjustified.
ESC &	<u>Exit All WP Modes</u> - Exits program mode, auto bold mode, auto shadow mode, auto underscore mode, auto center, and auto justify.

RECEIVED ASCII CHARACTERS	INSTRUCTION
Remote Diagnostics	
ESC # A (Not on Model 3530)	<u>Initialize Spinwriter</u> - Executes an initialize sequence same as normally occurs at Spinwriter power on. Erases tab settings.
ESC # B (Not on Model 3530)	<u>Reset</u> - Executes reset sequence same as normally occurs when pressing RESET switch.
ESC # 1 (Not on Model 3530)	<u>Request Status Word 1</u> - Sends diagnostic/status word 1.
ESC # 2 (Not on Models 3530 or 3500R)	<u>Request Status Word 2</u> - Sends diagnostic/status word 2.
ESC # 3 (Not on Models 3530 or 3500R)	<u>Request Status Word 3</u> - Sends diagnostic/status word 3.
ESC # P (Not on Models 3530 or 3500R)	<u>Suppress Printing</u> - (Clears with carriage return.)
Non-Volatile RAM (Optional)	
ESC # (xxx ...xxESC #) (Not on Model 3500R)	<u>"Here is" Message</u> - Allows you to program a message of up to 32 characters for polled network operations.

Models 3510/3520, 3500R and 3530 Absolute Horizontal Tab

1st	ESC																									
2nd	P	Q	R	S	T	U	V																			
3rd	1	17	33	49	65	81	97	113	129	145	161	177	193													
	A	Q	A	Q	A	Q	A	Q	A	Q	A	Q	A													
	2	18	34	50	66	82	98	114	130	146	162	178	194													
	B	R	B	R	B	R	B	R	B	R	B	R	B													
	3	19	35	51	67	83	99	115	131	147	163	179	195													
	C	S	C	S	C	S	C	S	C	S	C	S	C													
	4	20	36	52	68	84	100	116	132	148	164	180	196													
	D	T	D	T	D	T	D	T	D	T	D	T	D													
	5	21	37	53	69	85	101	117	133	149	165	181	197													
	E	U	E	U	E	U	E	U	E	U	E	U	E													
	6	22	38	54	70	86	102	118	134	150	166	182	198													
	F	V	F	V	F	V	F	V	F	V	F	V	F													
	7	23	39	55	71	87	103	119	135	151	167	183	199													
	G	W	G	W	G	W	G	W	G	W	G	W	G													
	8	24	40	56	72	88	104	120	136	152	168	184	200													
	H	X	H	X	H	X	H	X	H	X	H	X	H													
	9	25	41	57	73	89	105	121	137	153	169	185	201													
	I	Y	I	Y	I	Y	I	Y	I	Y	I	Y	I													
	10	26	42	58	74	90	106	122	138	154	170	186	202													
	J	Z	J	Z	J	Z	J	Z	J	Z	J	Z	J													
	11	27	43	59	75	91	107	123	139	155	171	187	203													
	K	[	K	[	K	[	K	[	K	[	K	[	K													
	12	28	44	60	76	92	108	124	140	156	172	188														
	L	\	L	\	L	\	L	\	L	\	L	\	L													
	13	29	45	61	77	93	109	125	141	157	173	189														
	M	]	M	]	M	]	M	]	M	]	M	]	M													
	14	30	46	62	78	94	110	126	142	158	174	190														
	N	^	N	^	N	^	N	^	N	^	N	^	N													
	15	31	47	63	79	95	111	127	143	159	175	191														
	O	-	O	-	O	-	O	-	O	-	O	-	O													
	16	32	48	64	80	96	112	128	144	160	176	192														



Models 3515/3525 Control Code and Escape Sequence Instruction Set (cont'd)

RECEIVED ASCII CHARACTERS	INSTRUCTION
Control Codes (cont'd)	
DC1	<b>X-ON</b> - Transmitted by Spinwriter, meaning ready to print (X-ON/X-OFF protocol).
DC3	<b>X-OFF</b> - Transmitted by Spinwriter, meaning not ready to print (X-ON/X-OFF protocol).
ESC	<b>Escape Prefix</b> - see ESC codes in this table.
SP	<b>Space</b> - In normal mode, moves carriage in printing direction one character distance. In program mode, moves carriage distance specified by next byte. In graphics mode, moves carriage position 1/60th of an inch.
Carriage Movement Escape Codes	
ESC 1	<b>Set Horizontal Tab</b> - Sets a horizontal tab at the current carriage position.
ESC 8	<b>Clear Horizontal Tab</b> - If the tab function DIP switch (see Appendix A) is off, clears the horizontal tab set at the current position. If the switch is on, clears all set horizontal tabs.
ESC 2	<b>Clear All Tabs</b> - Clears all set horizontal and vertical tabs, or clears the individual horizontal tab set at the current position, depending on the tab function DIP switch setting (see Appendix A).
ESC 6	<b>Reverse Print</b> - Prints from right to left.
ESC 5	<b>Forward Print</b> - Prints from left to right.
ESC /	<b>Auto Bidirectional Print On</b> - Prints in both directions if conditions permit.
ESC \	<b>Auto Bidirectional Print Off</b> - Prints only from left to right.
ESC 0	<b>Set Right Margin</b> - Sets right margin at current carriage position.

Models 3510, 3520, 3500R, and 3530 Relative Vertical Tab

1st	Reverse				Forward			
2nd	ESC							
3rd	X	Y	Z	[	X	Y	Z	[
	1	16	32	48	1	16	32	48
	A	Q	A	Q	A	Q	A	Q
	2	17	33	49	2	17	33	49
	B	R	B	R	B	R	B	R
	3	18	34	50	3	18	34	50
	C	S	C	S	C	S	C	S
	4	19	35	51	4	19	35	51
	D	T	D	T	D	T	D	T
	5	20	36	52	5	20	36	52
	E	U	E	U	E	U	E	U
	6	21	37	53	6	21	37	53
	F	V	F	V	F	V	F	V
	7	22	38	54	7	22	38	54
	G	W	G	W	G	W	G	W
	8	23	39	55	8	23	39	55
	H	X	H	X	H	X	H	X
	9	24	40	56	9	24	40	56
	I	Y	I	Y	I	Y	I	Y
	10	25	41	57	10	25	41	57
	J	Z	J	Z	J	Z	J	Z
	11	26	42	58	11	26	42	58
	K	[	K	[	K	[	K	[
	12	27	43	59	12	27	43	59
	L	\	L	\	L	\	L	\
	13	28	44	60	13	28	44	60
	M	]	M	]	M	]	M	]
	14	29	45	61	14	29	45	61
	N	^	N	^	N	^	N	^
	15	30	46	62	15	30	46	62
	O	-	O	-	O	-	O	-
	16	31	47	63	16	31	47	63



Models 3515/3525 Control Code and Escape Sequence Instruction Set

RECEIVED ASCII CHARACTERS	INSTRUCTION
Control Codes (Not printed)	
ETX	<b>End of Text</b> - The last character transmitted in batch (ETX/ACK protocol).
ACK	<b>Acknowledge</b> - Transmitted by Spinwriter, meaning ready to print (ETX/ACK protocol).
BEL	<b>Bell</b> - Sounds audible alarm.
BS	<b>Backspace</b> - In normal mode, reverses carriage position by one character space. In program mode, reverses carriage position a distance equal to the last forward spacing instruction. In graphics mode, reverses carriage position 1/60th of an inch.
HT	<b>Horizontal Tab</b> - Advances carriage to next horizontal tab set.
VT	<b>Vertical Tab</b> - Advances paper to next vertical tab set.
LF	<b>Line Feed</b> - Advances paper one line.
FF	<b>Form Feed</b> - Feeds paper to top of next form.
CR	<b>Carriage Return</b> - Moves carriage to left margin and if CR DIP switch is on, (see Appendix A) feeds paper one line.
SO	<b>Shift Out</b> - Interprets the characters that follow the code so that the terminal accesses the secondary character set on the thimble.
SI	<b>Shift In</b> - Resumes normal ASCII coding. Interprets the characters that follow the code so that the terminal accesses the primary character set on the thimble.