

EXIST
1: 567
ccc
2: 18(52)
ooo(02)

3 dump
1 = all
0
2: 167
ccc

apple computer

DOT MATRIX PRINTER
REFERENCE CARD

Apple Dot Matrix Printer Hardware Configuration

Apple II Series computers should be connected to the DMP with:
Apple Parallel Interface Card #A2B0021 and an Apple Parallel Interface Cable #A2M00052.

Refer to your Apple II Parallel Interface Card Instructions and Operating Manual for Dip Switch definition. Refer to the following Configuration table to set up your system.

Apple II Parallel Interface Card DIP Switch Configuration

1	2	3	4	5	6	7
OFF	OFF	OFF	ON	ON	OFF	OFF

Apple III Series Computers should be connected to the DMP with Apple Universal Parallel Interface Card #A3B0002.
If the Apple III UPIC has a DB-25 connector you should use an Apple Parallel Interface Cable #A2M0052 to connect the computer.
If the Apple III UPIC has a 40 pin connector you should use an Apple Parallel Interface Cable #A2M0052 and Parallel Adapter Cable #A3M0022 to connect the computer.

Refer to the Apple III UPIC Installation Manual to install the Apple III Series .PRINTER SOS Driver. Refer to the following Configuration Block Table to configure your Dot Matrix Printer driver using the system configuration program on the utilities diskette.

Apple III Series Driver Configuration Block

0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
00	00	00	00	0A											

Apple Dot Matrix Printer DIP Switch Configuration

When you look at the two DIP Switches inside your Dot Matrix Printer they will appear upside down and backwards. The configuration chart has been presented from the same perspective to simplify setting the switches correctly.

Switch 1 (sw1) Configuration

8	7	6	5	4	3	2	1
1: CR + LF	1: Print On CR, LF, VT, FF	1: CR/LF with Buffer Full	1: Ignore DC1, DC3	1: 72-Line TOF/TOF	Language Character Set Options *00: English (US) 101: Swedish 001: Italian 110: French 011: English (UK) 111: Spanish 100: German		
*0: CR Only	*0: PRINT After CR	*0: No CR/LF on Buffer Full	*0: Enable Remote Select, Deselect	*0: 66-Line TOF/TOF			

1 = Switch Closed, 0 = Switch Open, * = Standard Switch Setting

Switch 2 (sw2) Configuration

8	7	6	5	4	3	2	1
1: Unidirectional	1: Power-On Select	*1: 7-Bit Data	1: Proportional	NOT USED	NOT USED	1: Single Line Buffer	1: Slash Zero
*0: Bidirectional	*0: Power-On Deselect	0: 8-Bit Data	*0: 10 cpi	NOT USED	NOT USED	*0: N-Line Buffer	*0: Do Not Slash Zero

1 = Switch Closed, 0 = Switch Open, * = Standard Switch Setting

Apple Dot Matrix Printer Character Set

ASCII	DEC	HEX	ASCII	DEC	HEX	ASCII	DEC	HEX	ASCII	DEC	HEX
NUL	00	00	SP	32	20	*②	64	40	*⑦	96	60
SOH	01	01	!	33	21	A	65	41	a	97	61
STX	02	02	"	34	22	B	66	42	b	98	62
ETX	03	03	*⑩	35	23	C	67	43	c	99	63
EOT	04	04	*①	36	24	D	68	44	d	100	64
ENQ	05	05	•	37	25	E	69	45	e	101	65
ACK	06	06	&	38	26	F	70	46	f	102	66
BEL	07	07	'	39	27	G	71	47	g	103	67
BS	08	08	(	40	28	H	72	48	h	104	68
HT	09	09	)	41	29	I	73	49	i	105	69
LF	10	0A	★	42	2A	J	74	4A	j	106	6A
VT	11	0B	+	43	2B	K	75	4B	k	107	6B
FF	12	0C	,	44	2C	L	76	4C	l	108	6C
CR	13	0D	-	45	2D	M	77	4D	m	109	6D
SO	14	0E	.	46	2E	N	78	4E	n	110	6E
SI	15	0F	/	47	2F	O	79	4F	o	111	6F
DLE	16	10	0	48	30	P	80	50	p	112	70
DC1	17	11	1	49	31	Q	81	51	q	113	71
DC2	18	12	2	50	32	R	82	52	r	114	72
DC3	19	13	3	51	33	S	83	53	s	115	73
DC4	20	14	4	52	34	T	84	54	t	116	74
NAK	21	15	5	53	35	U	85	55	u	117	75
SYN	22	16	6	54	36	V	86	56	v	118	76
ETB	23	17	7	55	37	W	87	57	w	119	77
CAN	24	18	8	56	38	X	88	58	x	120	78
EM	25	19	9	57	39	Y	89	59	y	121	79
SUB	26	1A	:	58	3A	Z	90	5A	z	122	7A
ESC	27	1B	;	59	3B	*③	91	5B	*⑧	123	7B
FS	28	1C	<	60	3C	*④	92	5C	*⑨	124	7C
GS	29	1D	=	61	3D	*⑤	93	5D	*⑩	125	7D
RS	30	1E	>	62	3E	*⑥	94	5E	*⑪	126	7E
US	31	1F	?	63	3F	—	95	5F	DEL	127	7F

* ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ Reference numbers can be interpreted by referring to the Apple Dot Matrix Printer Extended Character Set (For Foreign Languages) table below.

Apple Dot Matrix Printer Extended Character Set (For Foreign Languages)

REF. NO.	0	1	2	3	4	5	6	7	8	9	10	11
HEXADECIMAL	23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
ENGLISH (USA)	#	\$	@	[	\	]	^	`	{		}	~
ENGLISH (UK)	£	\$	@	[	\	]	^	`	{		}	~
GERMAN	#	\$	§	Ä	Ö	Ü	^	`	ä	ö	ü	ß
FRENCH	£	\$	à	°	ç	§	^	`	é	ù	è	..
ITALIAN	£	\$	§	°	ç	é	^	ù	à	ò	è	ì
SWEDISH	#	\$	@	Ä	Ö	Å	^	`	ä	ö	å	~
SPANISH	£	\$	§	í	ñ	¿	^	`	°	ñ	ç	~

Apple Dot Matrix Printer Command Set

ASCII Symbol(s)	Hex Code	Decimal Code	Resulting Printer State
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Page Formatting Commands

ESC L n2 n1 n0	1B 4C n2+30 ... n0+30	27 76 n2+48 ... n0+48	Set Left Margin to Column n: "000"<=n<"999" col is 1 char width, 16 dots if proportional
ESC (a2 a1 a0 .	1B 28 a2+30 ... a0+30 2E	27 40 a2+48 ... a0+48 46	Set 1..32 Horizontal Tab(s) at column a [, column b ..., column n] . Each column no. must be 3 digits long. Parameters must be terminated by a period. If setting multiple tabs, separate each column parameter with a comma; eg. to set 2 tabs, send ESC (a2 a1 a0 , b2 b1 b0 . Leftmost column is 1. "001"<=n<="999"
ESC) a2 a1 a0 .	1B 29 a2+30 ... a0+30 2E	27 41 a2+48 ... a0+48 46	Clear Selective Tab(s). See above description.
ESC 0	1B 30	27 48	Clear All Tab(s)

Horizontal/Vertical Spacing Commands

ESC n	1B 6E	27 110	9 cpi (72 dpi, 576 dots/line)
ESC N	1B 4E	27 78	10 cpi Pica (80 dpi, 640 dots/line)
ESC E	1B 45	27 69	12 cpi Elite (96 dpi, 768 dots/line)
ESC q	1B 71	27 113	15 cpi (120 dpi, 960 dots/line)
ESC Q	1B 51	27 81	17 cpi (136 dpi, 1088 dots/line)
ESC P	1B 50	27 80	Proportional-1 (160 dpi, 1280 dots/line)
ESC p	1B 70	27 112	Proportional-2 (144 dpi, 1152 dots/line)
ESC 1	1B 31	27 49	Space 1 Dot Between Prop-1 Characters (Default is 1-dot space) Send ESC 1...ESC 6 after ea. char.
ESC 2	1B 32	27 50	Space 2 Dots Between Prop-1 Characters
ESC 3	1B 33	27 51	Space 3 Dots Between Prop-1 Characters
ESC 4	1B 34	27 52	Space 4 Dots Between Prop-1 Characters
ESC 5	1B 35	27 53	Space 5 Dots Between Prop-1 Characters
ESC 6	1B 36	27 54	Space 6 Dots Between Prop-1 Characters
ESC A	1B 41	27 65	1/6-inch Line Feed
ESC B	1B 42	27 66	1/8-inch Line Feed
ESC T n1 n0	1B 54 n1+30 n0+30	27 84 n1+48 n0+48	n/144-inch Line Feed; "00"<=n<="99"

Printer System Configuration Commands

DC1	11	17	Select printer (online)
DC3	13	19	Deselect printer (offline)
ESC D sw1 sw2	1B 44 sw1 sw2	27 68 sw1 sw2	Close (ON) DIP Switches Indicated by sw1 and sw2 OR Masks: sw1: 16 (decimal) Disable SELECT/DESELECT signals sw1: 32 If full data buffer printed out, send LF sw1: 64 Print commands: CR, LF, VT, and FF. sw1: 128 LF executed after CR sw2: 1 Print number zero with slash sw2: 32 7-bit data byte sw1 national character set codes: 0 English (US) 5 Swedish Usually requires 2 steps: 1 Italian 6 French ESC D chr(sw1) NUL 3 English (UK) 7 Spanish ESC Z chr((sw1)XOR(7)) NUL 4 German
ESC Z sw1 sw2	1B 5A sw1 sw2	27 90 sw1 sw2	Open (OFF) DIP Switches Indicated by sw1 and sw2 Masks: sw1: 16 (decimal) DESELECT/SELECT signals effective sw1: 32 No LF after data-buffer-full printout sw1: 64 CR is the only print command code sw1: 128 No LF after CR sw2: 1 Print number 0 without slash sw2: 32 8-bit data byte
ESC >	1B 3E	27 62	Unidirectional Print
ESC <	1B 3C	27 60	Bidirectional Print
ESC f	1B 66	27 102	Forward Line Feeds
ESC r	1B 72	27 114	Reverse Line Feeds
CAN	18	24	Cancel Current Line (text only)
DEL	7F	127	(DMP ignores this code).

Character Commands

ESC !	1B 21	27 33	Select Bold Print
ESC "	1B 22	27 34	Deselect Bold Print
SO	0E	14	Select Elongated Characters
SI	0F	15	Deselect Elongated Characters
ESC X	1B 58	27 88	Start Underline
ESC Y	1B 59	27 89	Stop Underline
ESC +	1B 2B	27 43	Custom Char Size = 8xn (n<= 16)
ESC -	1B 2D	27 45	Custom Char Size = 8xn (n<= 8)
ESC I <list> EOT	1B 49 <list> 04	27 73 <list> 04	Load Custom Character(s)
ESC \$	1B 24	27 36	Select Current Standard Font
ESC '	1B 27	27 39	Select Custom Font
ESC *	1B 2A	27 42	Select Alternate Custom Font, 7 bit, A0-EF

Position Print Head Commands

ESC F n3 n2 n1 n0	1B 46 n3+30 ... n0+30	27 70 n3+48 ... n0+48	Move Print Mech to Dot Position N, Relative to Left Mar.
HT	09	09	Horizontal Tab
SP	20	32	Space
BS	08	08	Backspace
CR	0D	13	Position at Left Margin
FF	0C	12	Form Feed
VT	0B	11	Vertical Tab
LF	0A	10	Line Feed

Text-Mode Output Commands

ESC R n2 n1 n0	1B 52 n2+30 ... n0+30	27 82 n2+48 ... n0+48	Repeat Next Character in Buffer N Times "001"<=N<="999"
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Graphics-Mode Output Commands

ESC G n3 n2 n1 n0 or ESC S n3 n2 n1 n0	1B 47 n3+30 ... n0+30 1B 53 n3+30 ... n0+30	27 71 n3+48 ... n0+48 27 83 n3+48 ... n0+48	Print N Dot Positions of 8 x 1 Graphics Characters "0001"<=N<="9999"
ESC V n3 n2 n1 n0	1B 56 n3+30 n2+30 ... n0+30	27 86 n3+48 n2+48 ... n0+48	Repeat Next Byte in Buffer for N Dot Positions "0001"<=N<="9999"