Programmer´s Guide

Tally MT50 Emulation

PSi Drucker Family PP 80x

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The contents of this manual are subject to change without notice.

Content

This appendix contains basic information on the MT 50 emulation commands supported in the printer. The MT 50 emulation is subset - compatible to the MT 50 printer.

PP 803   PP 806   PP 809

1   Description of PM´s Supporting MT50 Emulation

Characters used in control functions appear in mono spaced type. Table 1 explains some of the conventions used.

A pair of numbers separated by a slash (/) character indicates Column/Row notation. This notation refers to the location of a character in a standard code table, such as ASCII. (Example: 1/B = 1B is the hex-code for Escape)

Spaces appear between characters in sequence for clarity; they are not part of the format.

At the end of this chapter you will find a listing of the MT 50 emulation commands classified by Hex Code and a Hex - Decimal conversion table.

1.1 Personality Modules with Emulation MT50

Order number:	PP 80x:
8707-340-90116	PM SER/PAR MT50 PP80x
8707-340-90117	PM ETH 10/100 Mb/s MT50 PP80x
8707-340-90127	PM PAR STGCHG 80X MT50
8707-340-90128	PM ETH 10/100 STGCHG 80X MT50

2   Special MT50 Extensions in the Operator Panel Menu

Menu Setting   Function   Item

MACRO:

EMULATION   / MT   * default
/ IBM PROPR.
/ IBM PROPR. AGM
/ EPSON LQ

TRACT. FF-MODE   / NO BLANK PAGES * default
/ BLANK PAGES

VT MODE   / VT = VT   * default
/VT = LF + CUT
/VT = FF + CUT (deselect: CUT MODE ON !)

TEAR-OFF-MODE   / NO   * default
/ TEAR-OFF 10 S
/ TEAR-OFF 1 S
/ CUT 10 S.
/ CUT 1 S.
/ CUT 1 S. NO FF
/ CUT MODE ON
/ CUT ON FF

AUTOWRAP MODE   / ON   *default
/ OFF

INFO: CUT DEVICE = YES must be selected under INSTALLATION

INSTALLATION:

CONTROL MODES
LARGE 3, 5, 7   / CH.DOT MATRIX   * default
/ REAL LARGE CH.

ENQ RESPONSE   / NO STATUS RES. * default
/ STATUS RESPON.

ZERO   / NO SLASH ZERO   * default
/ SLASHED ZERO

ETX   / ACK   /NO   * default
/ YES
/ OFF

3   Conventions

ESC   Escape (1/B), introduces an escape sequence

n   Numeric parameter, or number of units that specify a distance or quantity pertaining to the escape sequence, control function or control string. Values are 0...999.
   If the parameter is in normal notation like "200" the programming in hex-code is according to an ASCII table. ("200" = 32, 30, 30 in hex)
   If the parameter must be programmed in hex-code the notation is with a slash.
   (1/A = 1A in hex-code)

SP   Is standing for Space (hex 20)

Code Tables: Codes in the range C/0 ... F/F are ignored or printed as Space *), resp. if the character sets:
- IBM SET 1,
- IBM SET 2,
- EPSON EXT. GCT,

are selected.

The complete character set is printed if code tables:
- ISO 8859/1,
- ISO 8859/15,
- IBM CODE PAGES CODE PAGES EE,
- CODE PAGES EE2,

are selected.

*) character code D/F see IBM or EPSON LQ Reference Manual

4   Control Codes

Escape Sequence	Mnemonic	Function
0/0	NUL	Null
0/5	ENQ	(see Status Request)
0/A	LF	Line Feed
0/B	VT	Vertical Tab
0/C	FF	Form Feed
0/D	CR	Carriage Return
0/E	SO	Double Width ON/OFF
0/F	SI	Poster font ON/OFF (PLAKAT)
1/1	DC1	XON
1/3	DC3	XOFF (buffer flow control – no XOFF in case of
1/4	DC4	Barcode bracket (see barcode)
1/A	SUB	Start Barcode header (see barcode)
1/B	ESC	Escape
1/C	FS	Large font 3-times ON/OFF (Large Character)
1/D	GS	Large font 5-times ON/OFF (Large Character)
1/E	RS	Large font 7-times ON/OFF (Large Character)
2/0	SP	Space

5 Special Code Sequences

Escape Sequence	Mnemonic	Function

ENQ

Status Request

Status Response (one Byte)

Bit 0 = 1   Busy (not READY)

Bit 1 = 1   Offline / Cover open Bit 2 = 1   Paper available

Bit 3 = 1   fixed

Bit 4 = x   same as Bit 1

Bit 5 = 1   Buffer overflow

Bit 6 = 1   Data transfer error

Bit 7 = 0   fixed

Rem.: Status Report must be enabled in the menu:

INSTALLATION/CONTROL MODES/ENQ RESPONSE/STAUS RESPON.

ESC [P1 ; P2 *SP* r   SM #   Select Macro and Change Emulation

P1 = 0 :   no change

P1 = 1 :   Macro 1

P1 = 2 :   Macro 2

P1 = 3 :   Macro 3

P1 = 4 :   Macro 4

P2 = 0:   no change

P2 = 1:   MT Emulation

P2 = 2:   IBM ProPrinter Emulation

P2 = 3:   IBM ProPrinter AGM Emulation

P2 = 4:   EPSON LQ Emulation

6 Vertical and Horizontal Form Handling

Escape Sequence	Mnemonic	Function
ESC P T T 0 ESC \		ignored
ESC [n SP G	SLS	Select Line space n/48 inch
ESC [n t	SPLL	Select Page length (n lines @ 6 lpi) (min. 18 lines)
ESC [n z		Select Line space (n lines per inch)
ESC [n g	VT	VT control (vertical tabulation control character) n = 0 VT = LF + CUT n = 1 VT = VT
ESC [n w	SCP	Select Character Pitch n = 0 5 cpi n = 1 6 cpi n = 2 7.5 cpi n = 3 8.3 cpi n = 4 10 cpi n = 5 12 cpi n = 6 15 cpi n = 7 16.6 cpi
ESC S C 0		Unsecured Mode *default
ESC P S C 0 ESC \		Unsecured Mode
ESC S C 1		Secured Mode (subset)
ESC P S C 1 ESC \		Secured Mode (subset)

7   Font Selection, Attributes, Code Table Handling

Escape Sequence	Mnemonic	Function
0/E	SO	Double Width ON/OFF
0/F	SI	PLAKAT font ON/OFF
1/0	DLE	(see PLAKAT font header)
1/9	EM	(see PLAKAT font header)
1/C	FS	Large font 3-times ON/OFF (Large Character) 1/D GS
		Large font 5-times ON/OFF (Large Character) 1/E RS Large font 7-

times ON/OFF (Large Character)

DLE nn EM		PLAKAT font header DLE ! nn EM
		2 <= nn <= 96 x 1/12 inch
		! = bi-directional print option
ESC (>		Font OCR - A
ESC (?		Font OCR – B
ESC [n J		Select font quality DRAFT / NLQ
		n = 0 DRAFT (DATA- font)
		n = 1 NLQ (LQ- font),
		prints NLQ or LQ depending on menu- setup.
		Default : ROMAN

Repeat character (preceding character) n = 0 (ignore) n = 1 .. 99

ESC [n m		Underline ON/OFF
		n = 4 underline on
		n = 0 underline off (resets all attibutes)

8   MT50 Barcode Printing

Escape Sequence	Mnemonic	Function

SUB [F] T [n] [; xyz] EM

Barcode Header

F = HRI (human readable index)
HRI: 2/2, 2/3, 2/6, 2/7, 2/A, 2/B, 2/E, 2/F, 3/1
No HRI: 2/0, 2/1, 2/4, 2/5, 2/8, 2/9, 2/C, 2/D, 3/0

T = Barcode type
A = 2/5 Matrix
B = 2/5 Industrial C = 2/5 Interleaved
F = Code 39
G = Codabar
H = EAN 8 with HRI
I = EAN 8 without HRI
K = EAN 13 with HRI
L = EAN 13 without HRI
N = UPC A with HRI
O = UPC A without HRI
P = UPC E with HRI
Q = UPC E without HRI

n = Barcode height in 1/6 inch

x = bar width
0 = 0.40 mm
1 = 0.75 mm
2 = 1.08 mm
3 = 1.41 mm

y = Gap width (0 ... 3)

z = Ratio wide to thin   (0 ... 3) [ ] optional
parameter

DC4 < data > DC4

DC4 = Barcode brackets (barcode on / off)

Hex - Decimal Conversion Table

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	41	57	73	89	105	121	137	153	269	185	201	217	233	249
A	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255