

Header Table

No.	Header type			Code	Example / Remarks
1	Printing transmission	STX 02H	DLE 10H	Item number Print discription	ETX 03H Change item 2 to "ABCDE"
2	Print Data recall	STX 02H	ESC 1BH	Header Message number 56H 3 digits (1 to 150(300)) 26H 2 digits (1 to 99)	ETX 03H 02H+10H+32H+41H+42H+43H+44H+45H+03H 123 : 02H+1BH+56H+31H+32H+33H+03H 45 : 02H+1BH+26H+34H+35H+03H
3	Print Condition transmission	STX 02H	ESC 1BH	Header Data 30H 2 digits (00-99) 31H 3 digits (000 to 199) 32H 1 digits (0-3) 33H 4 digits (0000 to 9999) 34H 4 digits (0000 to 9999) 35H 4 digits (0000 to 9999) 36H 4 digits (0000 to 9999) 37H 3 digits (000 to 999) 38H 4 digits (0000 to 9999) 39H 1 digits (1:time setup, 2: until end of print) 3AH 1 digits (0:HM, 1:NM, 2:QM) 3BH 1 digits (0:Time-based, 1:Encoder) 3CH 3 digits (001 to 999) 3DH 2 digits (01-16)	ETX 03H 90 : 02H+1BH+30H+39H+30H+03H 090 : 02H+1BH+31H+30H+39H+30H+03H 0 : 02H+1BH+32H+30H+03H 0100 : 02H+1BH+33H+30H+31H+30H+30H+03H 1234 : 02H+1BH+34H+31H+32H+33H+34H+03H 1234 : 02H+1BH+35H+31H+32H+33H+34H+03H 0200 : 02H+1BH+36H+30H+32H+30H+30H+03H 090 : 02H+1BH+37H+30H+39H+30H+03H 0100 : 02H+1BH+38H+30H+31H+30H+30H+03H 1 : 02H+1BH+39H+31H+03H 0:HM : 02H+1BH+3AH+30H+03H 1 : 02H+1BH+3BH+31H+03H 010 : 02H+1BH+3CH+30H+31H+30H+03H 02 : 02H+1BH+3DH+30H+32H+03H
4	Print format	STX 02H	ESC 1BH	Header Data 2BH 30H (fixed) 24H Item number + Print format 22H 2 digits "Line count (1-4)" + "Line spacing (0-2)" 21H 2 digits "Character size (0:5x5, 1:5:24x32)" + "Inter-character space (0-8)" 29H 1 digits (0: not used, 1: used) 2AH 1 digits (0:Code39, ..., 12:DM24x24) 7DH 1 digits (0:None, 1:5x5, 2:5x7) 2CH 2 digits (00-99) 3FH 1 digits (0:code set B, 1:code set C) 28H 1 digits (1-9)	ETX 03H 02H+1BH+2BH+30H+03H *)Must be set independently Change item 2 to "Line count=4 /Line spacing=1" 02H+1BH+24H+32H+1BH+22H+34H+31H+03H 3-line : (Part of format) 1BH+22H+33H+32H 2 3:12x16 : (Part of format) 1BH+21H+33H+34H 4 0 : (Part of format) 1BH+29H+30H EAN-13 : (Part of format) 1BH+29H+31H+1BH+2AH+33H 5x7 : (Part of format) 1BH+7DH+32H 49 : (Part of format) 1BH+2CH+34H+39H 1 : (Part of format) 1BH+3FH+31H 2 : (Part of format) 1BH+28H+32H 02H+1BH+20H+ 0:5x5 : 30H+ 01 : D1H+ 00H+01H+0CH+14H+00H+00H+00H+00H+03H
5	User pattern	STX 02H	ESC 1BH	Header Data 20H "Character size (0:5x5, 1:5:24x32)" + Registration No. + Data	ETX 03H 02H+1BH+20H+ 0:5x5 : 30H+ 01 : D1H+ 00H+01H+0CH+14H+00H+00H+00H+00H+03H
6	Calendar				
	Calendar character code	STX 02H	DLE 10H	Item number Print discription	ETX 03H Year: F250H, Month: F251H, Day: F252H, Hour: F253H, Minute: F254H, Second: F255H, Total day: F256H, Month 3-digit: F257H Weeks: F258H, Day of week: F259H
	Calendar condition transmission	STX 02H	ESC 1BH	Header Data 76H Item number + Type (0:Year, 1:Month, ..., 4:Minute) + Data 77H Item number + Type (0:Year, 1:Month, ..., 4:Minute) + Data (0:Disable, 1:Enable)	ETX 03H Item:2 : 02H+1BH+76H+32H+ 3:Hour : 33H+ -10 : 2DH+31H+30H+03H (" "(2DH) when setting negative offset to hour, minute.) Item:1 : 02H+1BH+77H+31H+ 2:Day : 32H+ 1 : 31H+03H
7	Count				
	Count character code	STX 02H	DLE 10H	Item number Print discription	ETX 03H C: F25AH
	Count condition transmission	STX 02H	ESC 1BH	Header Data 80H Item number + Type(0:Initial value, ..., 5:Reset) + Data 81H Item number + Type(0:In progress, 1:Unit) + Data 82H Item number + Type(0:Direction, ..., 2:Reset signal) + Data 83H Item number + Data	ETX 03H Item:2 : 02H+1BH+80H+32H+ 5:Reset : 35H+ 0100 : 30H+30H+30H+30H+03H Item:1 : 02H+1BH+81H+31H+ 1:unit : 31H+ 0005 : 30H+30H+30H+35H+03H Item:1 : 02H+1BH+82H+31H+ 0 : 30H+ 0:up : 30H+03H Item:1 : 02H+1BH+83H+31H+ 02 : 30H+32H+03H
8	Online/Offline transmission	x	ESC 1BH	Header 79H 7AH	x No need "ENQ/ACK hand shake" before Change to online: 1BH+79H Change to offline: 1BH+7AH
9	Current time output	x	ESC 1BH	Header 7BH	x No need "ENQ/ACK hand shake" before Inquiry "Current time output": 1BH+7BH
	Inquiry to IJP	STX 02H	ESC 1BH	Header Data 7CH 14 digits (YYMMDDhhmmss)	ETX 03H "Year:2010, Oct., 15th, 11:25, 30sec." : 02H+1BH+7CH+32H+30H+31H+30H+31H+30H+ : 31H+35H+31H+31H+32H+35H+33H+30H+03H

Header Table (SOP-04)

No.	Header type	Code				Example / Remarks
1	Print contents Output	x	ESC	Header	x	No need "ENQ/ACK hand shake" before Inquiry of Previously printed contents: 1BH+2EH Inquiry of Contents that will subsequently be printed: 1BH+2FH
	Previously printed contents			2EH		
	Contents that will subsequently be printed			2FH		
	Text output (Output from IJP)	STX	DLE	Item number	Print description	
2	Status inquiry	x	ESC	Header	x	No need "ENQ/ACK hand shake" before Inquiry of Status: 1BH+23H Data1: Communication connection status Data2: Receive enable/disable status Data3: Operation status, Data4: Warning status
	Inquiry to IJP			23H		
	Text output (Output from IJP)	STX	31H	x	Data	
					4 digits (Data1-4)	
3	Print start code (Output from IJP)	STX	07H	x	x	ETX
4	Print complete code (Output from IJP)	STX	DLE	19H	x	ETX
5	Remote operation control	STX	ESC	Header	Data	ETX
	Specifying the print items			71H	30H: Start of operation 31H: Shutdown of operation 32H: Deflection Voltage (ON) 33H: Deflection Voltage (OFF) 34H: Fault clear	
6	Clock initialization	STX	ESC	Header	Data	ETX
	Current date/time			72H	14 digits (YYYYMMDDhhmmss)	
	Calendar time control			73H	1: Same as current time 2: Clock stop	
	Calendar date/time			74H	14 digits (YYYYMMDDhhmmss)	
	Clock system			75H	1: 24-hour system 2: 12-hour system	
7	Print data registration	STX	ESC	Header	Message number (+name)	ETX
	Message number			55H	3 digits (1 to 150/300)	
				25H	2 digits (1 to 99)	
	Message name			86H	1 to 12 digits	
8	Output communication inquiry	x	ESC	Header	Classification	No need "ENQ/ACK hand shake" before
	Print line setting			C0H	C1H	
	Print contents				C2H	
	(current print contents with				C3H	
	Print contents (current print contents)				C4H	
	Calendar condition				C5H	
	Substitution rule				C6H	
	Count condition				C7H	
	Print format				C8H	
	Print specification				C9H	
	Print data (Message number & name)				CAH	
	User environment setup				CBH	
	Date/time setup				CCH	
	Communication environment setup				CDH	
	Touch screen setup				CEH	
	Operation management				CFH	
	View alarm history				D1H	
	Parts usage time management				D2H	
	View software version				D3H	
	Stirrer test (pigment ink machine only)				D4H	
	Month 3-column substitution rule				D5H	
	Shift code setup				D6H	
	Time count condition				Classification: D7H + Character size: 30H-36H + Page No.: 31H-33H Classification: D8H + Character size: 30H-36H + Page No.: 31H-32H	
	User pattern					
	Standard character pattern					
	Unit information			D0H	D1H	
	Viscometer calibration				D2H	
	System environment setup				D3H	
	Adjustment/operational checkout				D4H	
	Solenoid valve/pump test				D5H	

Header Table (SOP-16)

No.	Header type	Code				Example / Remarks
1	Printing transmission	STX	DLE	Item number	Print description	ETX
		02H	10H			03H
2	Clear buffer	STX	ESC	Header		ETX
				2DH	x	
3	Restart printing	STX	ESC	Header		ETX
				5AH	x	