OEM

COMMANDS MANUAL

STIMA-CLS
STIMA-CMP

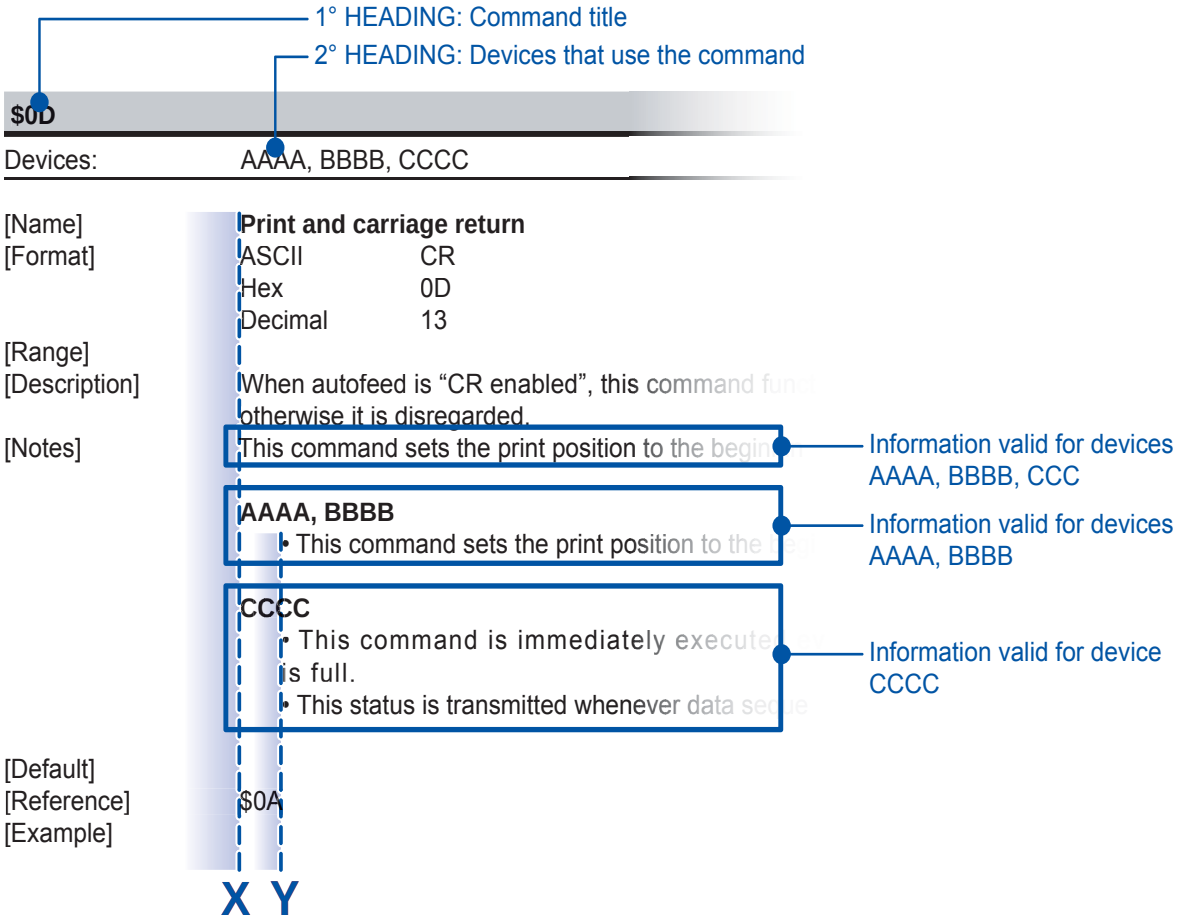
Code: **DOMC-ES00175-0001e**

1 INTRODUCTION

1.1 Command description

Each command reported in this manual is described as shown in the following picture. In the first heading line (grey colour) is reported the hexadecimal command value. In the second heading line are listed the devices on which it is possible to use the command (for example device AAAA).
The next fields give all the information useful to use the command.

[Name]	Command title
[Format]	ASCII, hexadecimal and decimal command value.
[Range]	Limits of the values the command and its variables can take
[Description]	Description of command function
[Notes]	Additional information about command use and settings .
[Default]	Default value of the command and its variables.
[Reference]	Pertaining commands related to described command.
[Example]	

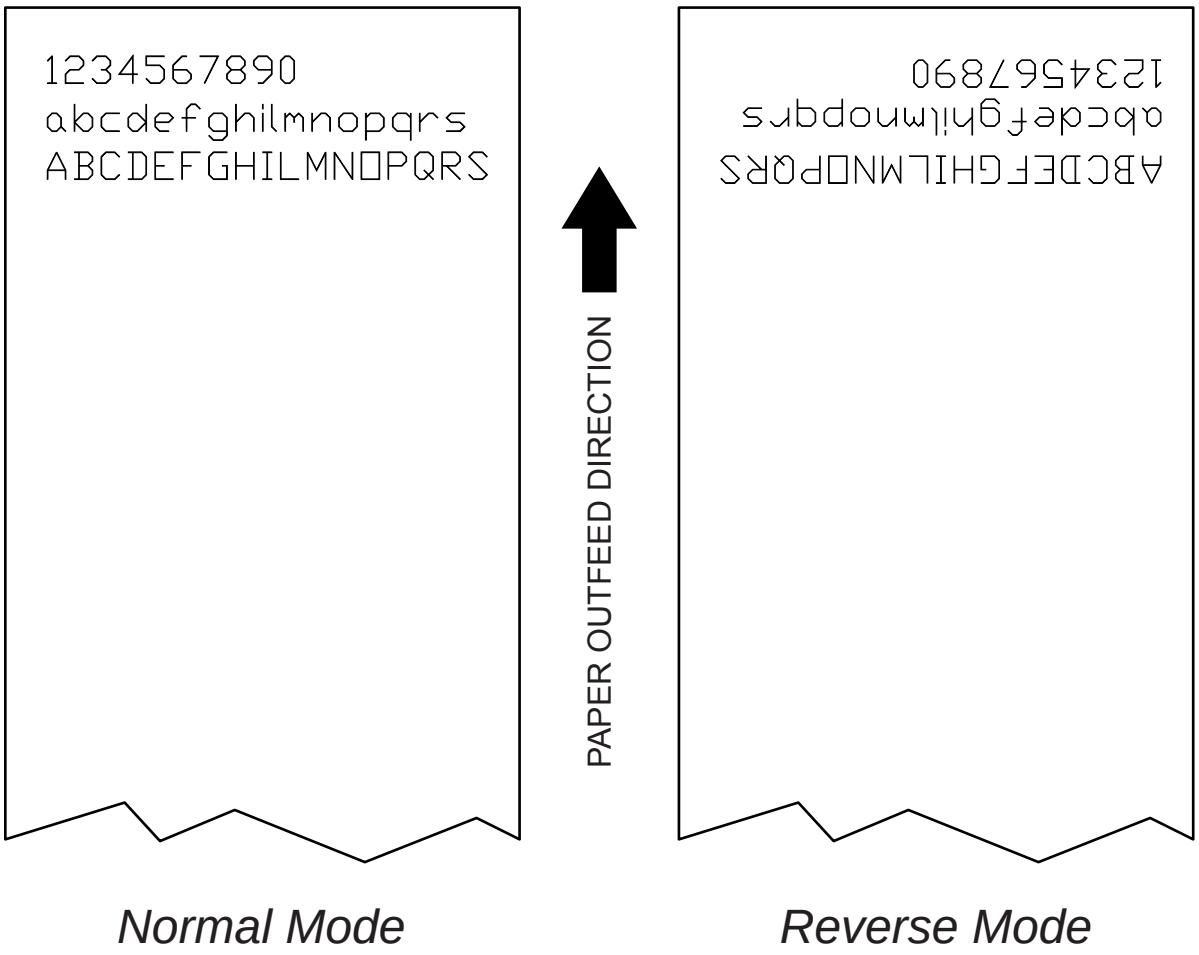


The information reported in the picture are aligned with line X or line Y:	
LINE X	Description valid for all the devices listed in the second heading line.
LINE Y	Description valid for a specific device (written in bold).

LEGEND	
$	indicates the representation of the command hexadecimal value (for example $40 means HEX 40).
{ }	indicates an ASCII character not performable.
n, m, t, x, y	are optional parameters that can have different values.

1.2 Print direction

The device has two printing direction which can be selected by means of the control characters: normal e reverse.



2 ESC/POS™ EMULATION

The following table lists all the commands for function management in ESC/POS Emulation of the device. The commands can be transmitted to the device at any moment, but they will only be carried out when the commands ahead of them have been executed. The commands are carried out when the circular buffer is free to do so.

COMMAND DESCRIPTION TABLE

Com. HEX	Com. ASCII	Description
PRINT COMMANDS		
$0A	LF	Print and line feed
$0D	CR	Print and carriage return
$1B $4A	ESC J	Print and feed paper
$1B $64	ESC d	Print and feed paper n lines
$1C $82	FS { }	Print date
$1C $83	FS { }	Print time
LINE SPACING COMMANDS		
$1B $30	ESC 0	Select 1/8-inch line spacing
$1B $32	ESC 2	Select 1/6-inch line spacing
$1B $33	ESC 3	Set line spacing using minimum units
CHARACTER COMMANDS		
$18	CAN	Cancel current line trasmitted
$1B $20	ESC SP	Set character right-side spacing
$1B $21	ESC !	Set print mode
$1B $25	ESC %	Select/cancel user-defined character set
$1B $26	ESC &	Define user-defined characters
$1B $2D	ESC -	Turn underline mode on/off
$1B $3F	ESC ?	Cancel user-defined characters
$1B $45	ESC E	Select emphasized mode
$1B $47	ESC G	Select double-strike mode
$1B $4D	ESC M	Select character font
$1B $52	ESC R	Select international character set
$1B $56	ESC V	Select print mode 90° turned
$1B $74	ESC t	Select character code table
$1B $7B	ESC {	Set/cancal upside-down character printing
$1B $C1	ESC { }	Set/cancel cpi mode
$1C $65	FS e	Enable/Disable TrueType fonts encoding
$1C $66	FS f	TrueType fonts management
$1D $21	GS !	Select character size
$1D $42	GS B	Turn white/black reverse printing mode on/off
PRINT POSITION COMMANDS		
$08	BS	Back space
$09	HT	Horizontal tab
$1B $24	ESC $	Set absolute position

$1B $28 $76	ESC (v	Set relative vertical print position
$1B $44	ESC D	Set horizontal tab position
$1B $5C	ESC \	Set relative print position
$1B $61	ESC a	Select justification
$1D $4C	GS L	Set left margin
$1D $57	GS W	Set printing area width
BIT-IMAGE COMMANDS		
$1B $2A	ESC *	Select image print mode
$1D $2A	GS *	Define downloaded bit image
$1D $2F	GS /	Print downloaded bit image
$1D $76 $30	GS v 0	Print raster image
STATUS COMMANDS		
$10 $04	DLE EOT	Real-time status transmission
$1B $76	ESC v	Transmit printer status
$1D $72	GS r	Transmit status
$1D $E0	GS { }	Enable / disable automatic FULL STATUS back
$1D $E1	GS { }	Reading of length paper (cm) available before virtual paper end
$1D $E2	GS { }	Reading number of cuts performed from the printer
$1D $E3	GS { }	Reading of length (cm) of printed paper
$1D $E5	GS { }	Reading number of power up
BARCODE COMMANDS		
$1C $B0	FS { }	Sets barcode reader status
$1C $B1	FS { }	Get barcode reader status
$1C $B2	FS { }	Barcode reader trigger
$1D $28 $6B	GS (k	Print two-dimensional barcode
$1D $48	GS H	Select printing position of HRI characters
$1D $66	GS f	Select font for HRI characters
$1D $68	GS h	Select barcode height
$1D $6B	GS k	Print barcode
$1D $77	GS w	Select horizontal size (enlargement) of barcode
MACRO FUNCTION COMMANDS		
$1D $3A	GS :	Set start/end of macro definition
$1D $5E	GS ^	Execute macro
MECHANISM CONTROL COMMANDS		
$1B $69	ESC i	Total cut
$1B $69	ESC i	Presentation mode
$1C $C1	FS { }	Paper recovery after cut
$1D $56	GS V	Select cut mode
MISCELLANEOUS COMMANDS		
$1B $3D	ESC =	Select device
$1B $40	ESC @	Initialize printer
$1B $63 $35	ESC c 5	Enable/Disable keys panel

$1C $3C	FS <	Change printer emulation to SVELTA
$1C $6C	FS I	Reload paper
$1C $80	FS { }	Read date/time of the real time clock
$1C $81	FS { }	Set date/time of the real time clock
$1C $84	FS { }	Set user-defined date/time formats
$1C $90	FS { }	Get number of stored logo
$1C $91	FS { }	Get pictures header list
$1C $92	FS { }	Get pictures header info
$1C $93	FS { }	Print logo
$1C $94	FS { }	Save the image received from serial port into the flash
$1C $C0	FS { }	Hardware reset
$1D $49	GS I	Transmit printer ID
$1D $50	GS P	Set horizontal and vertical motion units
$1D $E6	GS { }	Virtual paper end limit
TICKET MANAGEMENT COMMANDS		
$1D $7C	GS { }	Set printing density
$1D $E7	GS { }	Set notch distance
$1D $F0	GS { }	Set printing speed
$1D $F6	GS { }	Ticket align at print
$1D $F8	GS { }	Ticket align at cut

Given below are more detailed descriptions of each command.

$08	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Back space**
[Format] ASCII BS
Hex 08
Decimal 8
[Range]
[Description] Moves print position to previous character.
[Notes] Can be used to put two characters at the same position.
[Default]
[Reference]
[Example]

$09	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Horizontal tab**
[Format] ASCII HT
Hex 09
Decimal 9
[Range]
[Description] Moves the print position to the next horizontal tab position.
[Notes]
- Ignored unless the next horizontal tab position has been set.
- If the command is received when the printing position is at the right margin, the printer executes print buffer full printing and horizontal tab processing from the beginning of the next line.
- Horizontal tab position are set using $1B $44

[Default]
[Reference] $1B $44
[Example]

$0A

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print and line feed**

[Format]

ASCII	LF
Hex	0A
Decimal	10

[Range]

[Description] Prints the data in the buffer and feeds one line based on the current line spacing.

[Notes]
- Sets the print position to the beginning of the line.
- If the buffer is empty, the printing feeds of (character height + spacing gap) dot.

[Default]

[Reference] $1B $32, $1B $33, $0D

[Example]

$0D

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print and carriage return**

[Format]

ASCII	CR
Hex	0D
Decimal	13

[Range]

[Description] When autofeed is “CR enabled”, this command functions in the same way as $0A, otherwise it is disregarded.

[Notes]
- Sets the print position to the beginning of the line.

[Default] See “Autofeed in setup” parameter.

[Reference] $0A

[Example]

$10 $04

Devices: STIMA-CLS
STIMA-CMP

[Name] **Real-time status transmission**

[Format]

ASCII	DLE	EOT	n
Hex	10	04	n
Decimal	16	4	n

[Range] 1 ≤ n ≤ 4; n=17; n=20; n=21

[Description] Transmits the selected printer status specified by n in real time according to the following parameters:

n = 1	transmit printer status
n = 2	transmit off-line status
n = 3	transmit error status
n = 4	transmit paper roll sensor status
n = 17	transmit print status
n = 20	transmit FULL STATUS
n = 21	transmit printer ID

[Notes]
- Immediately executed even when the data buffer is full.
- This status is transmitted whenever data sequence $10 $04 n is received.

[Default]

[Reference] See tables below.

[Example] **STIMA-CMP**

n=1: Printer status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Not used. Fixed to Off
1	On	02	2	Not used. Fixed to On
2	-	-	-	RESERVED
3	Off	00	0	On-line.
	On	08	8	Off-line.
4	On	10	16	Not used. Fixed to On
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	Off	00	0	LF key released
	On	80	128	LF key pressed

n=2: Off-line status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Not used. Fixed to Off
1	On	02	2	Not used. Fixed to On
2	Off	00	0	Cover closed
	On	04	4	Cover opened
3	Off	00	0	Paper isn't fed by FEED. key
	On	08	8	Paper is fed by FEED. key
4	On	10	16	Not used. Fixed to On
5	Off	00	0	Paper present
	On	20	32	Printing stop due to paper end
6	Off	00	0	No error
	On	40	64	Error
7	Off	00	0	Not used. Fixed to Off

n=3: Error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Not used. Fixed to Off
1	On	02	2	Not used. Fixed to On
2	-	-	-	RESERVED
3	-	-	-	RESERVED
4	On	10	16	Not used. Fixed to On
5	Off	00	0	No unrecoverable error.
	On	20	32	Unrecoverable error
6	Off	00	0	No auto-recoverable error
	On	40	64	Auto-recoverable error
7	Off	00	0	Not used. Fixed to Off

n=4: Paper roll sensor status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Not used. Fixed to Off
1	On	02	2	Not used. Fixed to On
2,3	Off	00	0	Paper present..
	On	0C	12	Near paper end.
4	On	10	16	Not used. Fixed to On
5, 6	Off	00	0	Paper present
	On	60	96	Paper not present
7	Off	00	0	Not used. Fixed to Off

n=17: Print status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Not used. Fixed to Off
1	On	02	2	Not used. Fixed to On
2	Off	00	0	Paper drag motor off
	On	04	4	Paper drag motor on
3	-	-	-	RESERVED
4	On	10	16	Not used. Fixed to On
5	Off	00	0	Paper present
	On	20	32	Paper absent
6	-	-	-	RESERVED
7	Off	00	0	Not used. Fixed to Off

n=20: FULL status (6 bytes)

1° Byte = $10 (DLE)

2° Byte = $0F

3° Byte = Paper status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Paper present
	On	01	1	Paper not present
1	-	-	-	RESERVED
2	Off	00	0	Paper present
	On	04	4	Near paper end
3	-	-	-	RESERVED
4	-	-	-	RESERVED
5	Off	00	0	Ticket not present in output
	On	20	32	Ticket present in output
6	Off	00	0	Not virtual paper end (*).
	On	40	64	Virtual paper end (*).
7	Off	00	0	Notch found
	On	80	128	Notch not found

(*) Virtual paper end is set when the paper length available, readed by $1D $E1, is 0.

4° byte = User status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Printing head down
	On	01	1	Printing head up error
1	Off	00	0	Cover closed
	On	02	2	Cover opened
2	Off	00	0	No spooling
	On	04	4	Spooling
3	Off	00	0	Drag paper motor off
	On	08	8	Drag paper motor on
4	-	-	-	RESERVED
5	Off	00	0	LF key released
	On	20	32	LF key pressed
6	Off	00	0	FF key released
	On	40	64	FF key pressed
7	-	-	-	RESERVED

5° byte = Recoverable error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Head temperature ok.
	On	01	1	Head temperature error
1	Off	00	0	No COM error
	On	02	2	RS232 COM error
2	-	-	-	RESERVED
3	Off	00	0	Power supply voltage ok
	On	08	8	Power supply voltage error
4	-	-	-	RESERVED
5	Off	00	0	Acknowledge command
	On	20	32	Not acknowledge command error
6	Off	00	0	Free paper path
	On	40	64	Paper jam
7	Off	00	0	Notch search ok
	On	80	128	Error in notch search

6° byte = Unrecoverable error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	-	-	-	RESERVED
1	Off	00	0	Frontal cover ok
	On	02	2	Frontal cover open
2	Off	00	0	RAM ok
	On	04	4	RAM error
3	Off	00	0	EEPROM ok
	On	08	8	EEPROM error
4	-	-	-	RESERVED
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	-	-	-	RESERVED

n=21: transmit printer ID 1° byte = $75 (refer to command $1D $49)

STIMA-CLS

n=1: Printer status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Not used. Fixed to Off
1	On	02	2	Not used. Fixed to On
2	-	-	-	RESERVED
3	Off	00	0	On-line.
	On	08	8	Off-line.
4	On	10	16	Not used. Fixed to On
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	Off	00	0	LF key released
	On	80	128	LF key pressed

n=2: Off-line status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Not used. Fixed to Off
1	On	02	2	Not used. Fixed to On
2	Off	00	0	Cover closed
	On	04	4	Cover opened
3	Off	00	0	Paper isn't fed by FEED. key
	On	08	8	Paper is fed by FEED. key
4	On	10	16	Not used. Fixed to On
5	Off	00	0	Paper present
	On	20	32	Printing stop due to paper end
6	Off	00	0	No error
	On	40	64	Error
7	Off	00	0	Not used. Fixed to Off

n=3: Error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Not used. Fixed to Off
1	On	02	2	Not used. Fixed to On
2	-	-	-	RESERVED
3	Off	00	0	Cutter ok.
	On	08	8	Cutter error.
4	On	10	16	Not used. Fixed to On
5	Off	00	0	No unrecoverable error.
	On	20	32	Unrecoverable error
6	Off	00	0	No auto-recoverable error
	On	40	64	Auto-recoverable error
7	Off	00	0	Not used. Fixed to Off

n=4: Paper roll sensor status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Not used. Fixed to Off
1	On	02	2	Not used. Fixed to On
2,3	Off	00	0	Paper present.
	On	0C	12	Near paper end.
4	On	10	16	Not used. Fixed to On
5, 6	Off	00	0	Paper present
	On	60	96	Paper not present
7	Off	00	0	Not used. Fixed to Off

n=17: Print status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Not used. Fixed to Off
1	On	02	2	Not used. Fixed to On
2	Off	00	0	Paper drag motor off
	On	04	4	Paper drag motor on
3	-	-	-	RESERVED
4	On	10	16	Not used. Fixed to On
5	Off	00	0	Paper present
	On	20	32	Paper absent
6	-	-	-	RESERVED
7	Off	00	0	Not used. Fixed to Off

n=20: FULL status (6 bytes)

1° Byte = $10 (DLE)

2° Byte = $0F

3° Byte = Paper status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Paper present
	On	01	1	Paper not present
1	-	-	-	RESERVED
2	Off	00	0	Paper present
	On	04	4	Near paper end
3	-	-	-	RESERVED
4	-	-	-	RESERVED
5	Off	00	0	Ticket not present in output
	On	20	32	Ticket present in output
6	Off	00	0	Not virtual paper end (*).
	On	40	64	Virtual paper end (*).
7	-	-	-	RESERVED

(*) Virtual paper end is set when the paper length available, readed by $1D $E1, is 0.

4° byte = User status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Cover closed
	On	01	1	Cover opened
1	Off	00	0	Cover closed
	On	02	2	Cover opened
2	-	-	-	RESERVED
3	Off	00	0	Drag paper motor off
	On	08	8	Drag paper motor on
4	-	-	-	RESERVED
5	Off	00	0	LF key released
	On	20	32	LF key pressed
6	Off	00	0	FF key released
	On	40	64	FF key pressed
7	Off	00	0	Notch not detected under the sensor
	On	80	128	Notch detected under the sensor

5° byte = Recoverable error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Head temperature ok.
	On	01	1	Head temperature error
1	Off	00	0	No COM error
	On	02	2	RS232 COM error
2	-	-	-	RESERVED
3	Off	00	0	Power supply voltage ok
	On	08	8	Power supply voltage error
4	-	-	-	RESERVED
5	Off	00	0	Acknowledge command
	On	20	32	Not acknowledge command error
6	Off	00	0	Free paper path
	On	40	64	Paper jam
7	Off	00	0	Notch search ok
	On	80	128	Error in notch search

6° byte = Unrecoverable error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Cutter ok
	On	01	1	Cutter error
1	Off	00	0	Frontal cover ok
	On	02	2	Frontal cover open
2	Off	00	0	RAM ok
	On	04	4	RAM error
3	Off	00	0	EEPROM ok
	On	08	8	EEPROM error
4	-	-	-	RESERVED
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	-	-	-	RESERVED

$18

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Cancel current line transmitted**

[Format]

ASCII	CAN	
Hex	18	
Decimal	24	

[Description] Deletes current line transmitted.

[Notes]
- Sets the print position to the beginning of the line.
- However, this command does not clear the receive buffer.

[Default]

[Reference]

[Example]

$1B $20

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set right-side character spacing**

[Format]

ASCII	ESC	SP	n
Hex	1B	20	n
Decimal	27	32	n

[Range] 0 ≤ n ≤ 255

[Description] Sets the character spacing for the right side of the character to [n x horizontal or vertical motion units].

[Notes]
- The right character spacing for double-width mode is twice the normal value.
When the characters are enlarged, the right side character spacing is m (2 or 4) times the normal value.
- The horizontal and vertical motion units are specified by $1D $50. Changing the horizontal or vertical motion units does not affect the current right side spacing.
- The $1D $50 command can change the horizontal (and vertical) motion unit. However, the value cannot be less than the minimum horizontal movement amount.
- In standard mode, the horizontal motion unit is used.
- The maximum right side spacing is 32mm.

[Default] n = 0

[Reference] $1D $50

[Example]

$1B $21

Devices: STIMA-CLS

STIMA-CMP

[Name] **Select print modes**

[Format]

ASCII	ESC	!	n
Hex	1B	21	n
Decimal	27	33	n

[Range] 0 ≤ n ≤ 255

[Description] Selects print modes using *n* (see table below):

BIT	OFF/ON	HEX	Decimal	FUNCTION	11/15 cpi	15/20 cpi
0	Off	00	0	Character font A selected	18 x 24	14 x 24
	On	01	1	Character font B selected	14 x 24	10 x 24
1	-	-	-	Undefined		
2	-	-	-	Undefined		
3	Off	00	0	Expanded mode not selected		
	On	08	8	Expanded mode selected		
4	Off	00	0	Double-height mode not selected		
	On	10	16	Double-height mode selected		
5	Off	00	0	Double-width mode not selected		
	On	20	32	Double-width mode selected		
6	Off	00	0	Italic mode not selected		
	On	40	64	Italic mode selected		
7	Off	00	0	Underlined mode not selected		
	On	80	128	Underlined mode selected		

[Notes]
- The printer can underline all characters, but cannot underline the spaces set by $09, $1B $24, $1B $5C and 90°/270° rotated characters.
- This command resets the left and right margin at default value (see $1D $4C, $1D $57).
- $1B $45 can also be used to turn the emphasized mode on/off. However, the last-received setting command is the effective one.
- $1B $2D can also be used to turn the underlining mode on/off. However, the last-received setting command is the effective one.
- $1D $21 can also be used to select character height/width. However, the last-received setting command is the effective one.

[Default] n = 0

[Reference] $1B $2D, $1B $45, $1D $21

[Example]

$1B $24

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set absolute print position**

[Format]

ASCII	ESC	$	nL	nH
Hex	1B	24	nL	nH
Decimal	27	36	nL	nH

[Range]
0 ≤ nL ≤ 255
0 ≤ nH ≤ 255

[Description]
Sets the distance from the beginning of the line to the position at which subsequent characters are to be printed.
The distance from the beginning of the line to the print position is [(nL + nH × 256) × (vertical or horizontal motion unit)] inches.

[Notes]
• Settings outside the specified printable area are ignored.
• The horizontal and vertical motion unit are specified by $1D $50.
• $1D $50 can change the horizontal (and vertical) motion unit. However, the value cannot be less than the minimum horizontal movement amount.
• In standard mode, the horizontal motion unit (x) is used.
• If the setting is outside the printing area width, it sets the absolute print position, but the left or right margin is set at default value.

[Default]

[Reference] $1B $5C, $1D $50

[Example]

$1B $25

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Select/cancel user-defined characters**

[Format]

ASCII	ESC	%	n
Hex	1B	25	n
Decimal	27	37	n

[Range] 0 ≤ n ≤ 255

[Description] Selects or cancels the user-defined character set.
When the Least Significant Bit (LSB) of n is 0, the user-defined character set is cancelled.
When the LSB of n is 1, the user-defined character set is selected.

[Notes]
• Only the LSB of n is applicable.
• When the user-defined character set is cancelled, the internal character set is automatically selected.

[Default] n=0

[Reference] $1B $26, $1B $3F

[Example]

$1B $26

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Defines user-defined characters**

[Format]

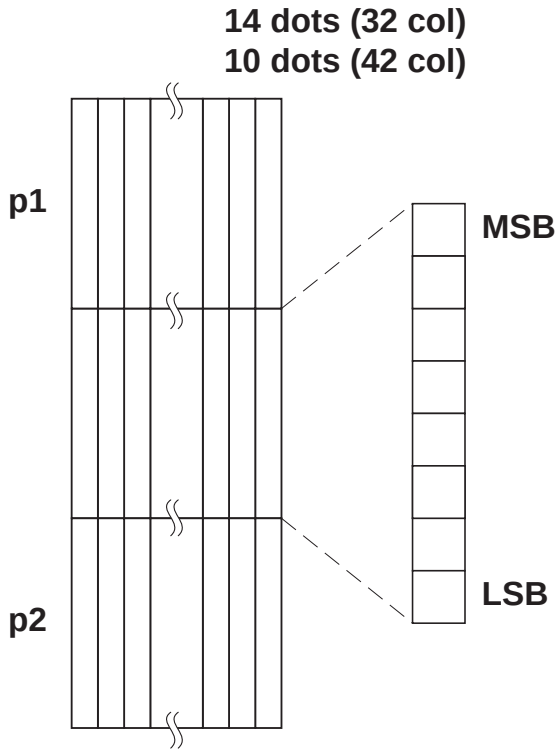
ASCII	ESC	&	y	c1	c2
Hex	1B	26	y	c1	c2
Decimal	27	37	y	c1	c2

[Range]
y = 3
32 ≤ c1 ≤ c2 ≤ 126
0 ≤ x ≤ 16 (Font (18 × 24))
0 ≤ x ≤ 13 (Font (14 × 24))
0 ≤ x ≤ 10 (Font 10 × 24)
0 ≤ d1 … d (y × xk) ≤ 255
k = c2 – c1 + 1

[Description] Defines user-defined characters.
• Y specifies the number of bytes in the vertical direction.
• C1 specifies the beginning character code for the definition, and C2 specifies the final code.
• X specifies the number of dots in the horizontal direction.

[Notes]
• The allowable character code range is from ASCII $20 (32) to $7E (126) (95 characters).
• It is possible to define multiple characters for consecutive character codes. If only one character is desired, use c1 = c2.
• If c2 < c1, the command is not executed.
• d is the dot data for the characters. The dot pattern is in the horizontal direction starting from the left. Any remaining dots on the right remain blank.
• The data to define a user-defined character is (x x y) bytes.
• To print a dot, set the corresponding bit to 1; to not have it print, set to 0.
• This command can define different user-defined character patterns for each font. To select the font, use $1B $21.
• The user-defined character definitions are cleared when: $1B $40 or $1D $2A or $1B $3F are executed or the printer is reset or the power shut off.

[Default] Internal character set.
[Reference] $1B $25, $1B $3F
[Example]



$1B $28 $76

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set relative vertical print position**

[Format]

ASCII	ESC	(	v	nL	nH
Hex	1B	28	76	nL	nH
Decimal	27	10	118	nL	nH

[Range] 0 ≤ nL ≤ 255
0 ≤ nH ≤ 255

[Description] Sets the print vertical position based on the current position by using the horizontal or vertical motion unit. This command sets the distance from the current position to [(nL + nH × 256) × (horizontal or vertical motion unit)].

[Notes]
• When the starting position is specified by N motion unit to the bottom: nL + nH × 256 = N
• When the starting position is specified by N motion unit to the top (negative direction), use the complement of 65536: nL + nH × 256 = 65536 - N
• The horizontal and vertical motion unit are specified by $1D $50.
• The $1D $50 command can change the horizontal (and vertical) motion unit. However, the value cannot be less than the minimum horizontal movement amount.
• In standard mode, the vertical motion unit is used.

[Default]
[Reference] $1D $50
[Example]

$1B $2A

Devices: STIMA-CLS
STIMA-CMP

[Name] **Select bit image mode**

[Format]

ASCII	ESC	*	m	nL	nH	d1...dk
Hex	1B	2A	m	nL	nH	d1...dk
Decimal	27	42	m	nL	nH	d1...dk

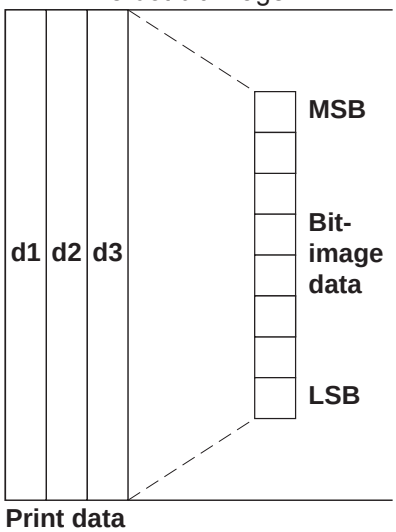
[Range]
m = 0, 1, 32, 33
0 ≤ nL ≤ 255
0 ≤ nH ≤ 3
0 ≤ d ≤ 255

[Description] Selects a bit image mode using m for the number of dots specified by nL and nH, as follows:

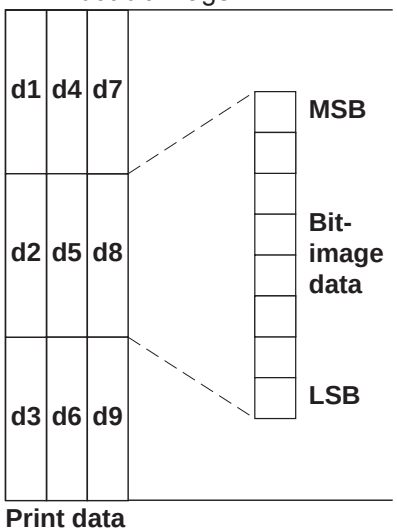
m	MODE	VERTICAL DIRECTION		HORIZONTAL DIRECTION (*1)	
		N° dots	DPI	DPI	N° of data (k)
0	8 dot single density	8	67	100	nL + nH × 256
1	8 dot double density	8	67	200	nL + nH × 256
32	24 dot single density	24	200	100	(nL + nH × 256) × 3
33	24 dot double density	24	200	200	(nL + nH × 256) × 3

[Notes]
• The nL and nH commands indicate the number of dots of the bit image in the horizontal direction. The number of dots is calculated using: nL + nH x 256.
• If the bit image data input exceeds the number of dots to be printed on a line, the excess data is ignored.
• d indicates the bit image data. Set a corresponding bit to 1 to print a dot, or to 0 to not print the dot.
• If the value of m is outside the specified range, nL and data following it are processed as normal data.
• If the width of the printing area set by $1D $4C and $1D $57 is less than the width required by the data set using $1B $2A, the excess data are ignored.
• To print the bit image use $1B $4A or $1B $64.
• After printing a bit image, the printer returns to normal data processing mode.
• This command is not affected by the emphasized, double-strike, underline (etc.) print modes, except for the upside-down mode.
• The relationship between the image data and the dots to be printed is as follows:

8-dot bit image



24-dot bit image



[Default]
[Reference]
[Example]

$1B $2D

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Turn underline mode on/off**

[Format]

ASCII	ESC	-	n
Hex	1B	2D	n
Decimal	27	45	n

[Range] 0 ≤ n ≤ 2
48 ≤ n ≤ 50

[Description] Turns underline mode on or off, based on the following values of *n*:

n = 0, 48	Turns off underline mode
n = 1, 49	Turns on underline mode (1-dot thick)
n = 2, 50	Turns on underline mode (2-dot thick)

[Notes]
- The printer can underline all characters, but cannot underline the space and right-side character spacing.
- The printer cannot underline 90°/270° rotated characters and white/black inverted characters.
- When underline mode is turned off by setting the value of n to 0 or 48, the data which follows is not underlined.
- Underline mode can also be turned on or off by using $1B $21. Note, however, that the last received command is the effective one.

[Default] n=0
[Reference] $1B $21
[Example]

$1B $30

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Select 1/8-inch line spacing**

[Format]

ASCII	ESC	0
Hex	1B	30
Decimal	27	48

[Range]
[Description] Selects 1/8-inch line spacing
[Notes]
[Default]
[Reference] $1B $32, $1B $33
[Example]

$1B $32

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Select 1/6-inch line spacing**

[Format]

ASCII	ESC	2
Hex	1B	32
Decimal	27	50

[Range]

[Description] Selects 1/6-inch line spacing.

[Notes]

[Default]

[Reference] $1B $30, $1B $33

[Example]

$1B $33

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set line spacing**

[Format]

ASCII	ESC	3	n
Hex	1B	33	n
Decimal	27	51	n

[Range] 0 ≤ n ≤ 255

[Description] Sets line spacing to [n × (vertical or horizontal motion unit)] inches.

[Notes]
- The horizontal and vertical motion unit are specified by $1D $50. Changing the horizontal or vertical motion unit does not affect the current line spacing.
- The $1D $50 command can change the horizontal (and vertical) motion unit. However, the value cannot be less than the minimum vertical movement amount.
- In standard mode, the vertical motion unit is used.
- The maximum spacing is 32.5mm.

[Default] n = 64 (1/6 inch)

[Reference] $1B $30, $1B $32, $1D $50

[Example]

$1B $3D

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Select peripheral device**

[Format]

ASCII	ESC	=	n
Hex	1B	3D	n
Decimal	27	61	n

[Range] 1 ≤ n ≤ 3, n = 5

[Description] Select the device to which the host computer sends data, using *n* as follows:

n = 1, n = 3	Printer Enabled
n = 2	Printer Disabled
n = 5 or n = '5'	Select Pass-Through toward RFID module

[Notes]
- When the printer is disabled, it ignores all transmitted data until the printer is enabled through this command.
- When the Pass-trough function is enabled, all transmitted data are sent on the 2nd serial.
- When the Pass-trough function is enabled toward RFID module, to reactivate communication toward printer must send the $1B $3D $31 $F1 $5A $E0 command.

[Default] n = 1

[Reference]

[Example]

$1B $3F

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Cancel user-defined characters**

[Format]

ASCII	ESC	?	n
Hex	1B	3F	n
Decimal	27	63	n

[Range] 32 ≤ n ≤ 126

[Description] Cancels user-defined characters.

[Notes]
- This command cancels the pattern defined for the character code specified by n.
- This command deletes the pattern defined for the specified character code in the font selected by $1B $21.
- If the user-defined character has not been defined for the specified character code, the printer ignores this command.

[Default]

[Reference] $1B $26, $1B $25

[Example]

$1B $40

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Initialize printer**

[Format]

ASCII	ESC	@
Hex	1B	40
Decimal	27	64

[Range]

[Description] Clears the data in the print buffer and resets the printer mode to that in effect when power was turned on.

[Notes]
- The data in the receiver buffer is not cleared.
- The macro definitions are not cleared.

[Default]

[Reference]

[Example]

$1B $44

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set horizontal tab positions**

[Format]

ASCII	ESC	D	n1...nk	NUL
Hex	1B	44	n1...nk	$00
Decimal	27	68	n1...nk	0

[Range]
$1 \le n \le 255$
$0 \le k \le 32$

[Description] Sets horizontal tab positions
- n specifies the column number for setting a horizontal tab position calculated from the beginning of the line.
- k indicates the total number of horizontal tab positions to be set.

[Notes]
- The horizontal tab position is stored as a value of [character width x n] measured from the beginning of the line. The character width includes the right-side character spacing and double-width characters are set with twice the width of normal characters.
- This command cancels previous tab settings.
- When setting n = 8, the print position is moved to column 9.
- Up to 32 tab positions (k = 32) can be set. Data exceeding 32 tab positions is processed as normal data.
- Send [n] k in ascending order and place a 0 NUL code at the end. When [n] k is less than or equal to the preceding value [n] k -1, the setting is complete and the data which follows is processed as normal data.
- $1B $44 $00 cancels all horizontal tab positions.
- The previously specified horizontal tab position does not change, even if the character width is modified.

[Default] Default tab positions are set at intervals of 8 characters (columns 9, 17, 25, …) for Font A when the right-side character spacing is 0.

[Reference] $09

[Example]

$1B $45

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Turn emphasized mode on/off**

[Format]

ASCII	ESC	E	n
Hex	1B	45	n
Decimal	27	69	n

[Range] 0 ≤ n ≤ 255

[Description] Turns emphasized mode on/off.
- When the LSB of n is 0, the emphasized mode is off.
- When the LSB of n is 1, the emphasized mode is on.

[Notes]
- Only the LSB of n is effective.
- $1B $21 also turns on and off the emphasized mode. However, the last received command is the effective one.

[Default] n = 0

[Reference] $1B $21

[Example]

$1B $47

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Turn double-strike mode on/off**

[Format]

ASCII	ESC	G	n
Hex	1B	47	n
Decimal	27	71	n

[Range] 0 ≤ n ≤ 255

[Description] Turns double-strike mode on or off.
- When the LSB of n is 0, the double-strike mode is off.
- When the LSB of n is 1, the double-strike mode is on.

[Notes]
- Only the LSB of n is effective.
- Printer output is the same in double-strike and emphasized mode.

[Default] n = 0

[Reference] $1B $45

[Example]

$1B $4A

Devices: STIMA-CLS
STIMA-CMP

[Name] **Print and paper feed**

[Format]

ASCII	ESC	J	n
Hex	1B	4A	n
Decimal	27	74	n

[Range] 0 ≤ n ≤ 255

[Description] Prints the data in the print buffer and feeds the paper [n × (vertical or horizontal motion unit)] inches.

[Notes]
- After printing has been completed, this command sets the print starting position to the beginning of the line.
- The paper feed amount set by this command does not affect the values set by $1B $32 or $1B $33.
- The horizontal and vertical motion units are specified by $1D $50.
- $1D $50 can change the vertical (and horizontal) motion unit. However, the value cannot be less than the minimum vertical movement amount.
- In standard mode, the vertical motion unit is used.
- The maximum paper feed amount is 520 mm.

[Default]

[Reference] $1D $50

[Example]

$1B $4D

Devices: STIMA-CLS
STIMA-CMP

[Name] **Select character font**

[Format]

ASCII	ESC	M	n
Hex	1B	4D	n
Decimal	27	77	n

[Range] n = 0, 1, 48, 49

[Description] Selects characters font depending of cpi value set (Char/Inch) as follows :

CHAR/INCH.	n	FUNCTION
A=11 cpi B=15 cpi	0, 48	Font 11 cpi (18 × 24)
	1, 49	Font 15 cpi (14 × 24)
A=15 cpi B=20 cpi	0, 48	Font 15 cpi (14 × 24)
	1, 49	Font 20 cpi (10 × 24)

[Notes]

[Default]

[Reference] $1B $C1

[Example]

$1B $52

Devices: STIMA-CLS

STIMA-CMP

[Name] **Select an international character set**

[Format]

ASCII	ESC	R	n
Hex	1B	52	n
Decimal	27	82	n

[Range] 0 ≤ n ≤ 10

[Description] Selects the international character set *n* according to the table below:

	HEX	23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
n	CHARACTER SER												
0	U.S.A.	#	$	@	[	\	]	^	`	{	|	}	~
1	France	#	$	à	°	ç	§	^	`	é	ù	è	“
2	Germany	#	$	§	Ä	Ö	Ü	^	`	ä	ö	ü	b
3	United Kingdom	£	$	@	[	\	]	^	`	{	|	}	~
4	Denmark I	#	$	@	Æ	Æ	Å	^	`	æ	f	å	~
5	Sweden	#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü
6	Italy	#	$	@	°	\	é	^	ù	à	ò	è	ì
7	Spain I	Pt	$	@	i	Ñ	¿	^	`	“	ñ	}	~
8	Japan	#	$	@	[	¥	]	^	`	{	|	}	~
9	Norway	#	¤	É	Æ	Æ	Å	Ü	é	æ	f	å	ü
10	Denmark II	#	$	É	Æ	Æ	Å	Ü	é	æ	f	å	ü

[Default] n = 0

[Reference]

[Example]

$1B $56

Devices: STIMA-CLS

STIMA-CMP

[Name] **Set 90° rotated print mode**

[Format]

ASCII	ESC	V	n
Hex	1B	56	n
Decimal	27	86	n

[Range] 0 ≤ n ≤ 1, 48 ≤ n ≤ 49

[Description] Turns 90° rotation mode on/off. n is used as follows :

n	FUNCTION
0, 48	Turns off 90° rotation mode
1, 49	Turns on 90° rotation mode

[Notes]
• When underlined mode is turned on, the printer does not underline 90° rotated characters. All the same it's possible select the underline mode.
• Double-width and double-height commands in 90° rotation mode enlarge characters in the opposite directions from double-height and double-width commands in normal mode.
• This command is not available in Page mode.
• If this command is entered in Page mode, the printer all the same save the setting.

Default] n = 0

[Reference] $1B $21, $1B $2D

[Example]

$1B $5C

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set relative print position**

[Format]

ASCII	ESC	\	nL	nH
Hex	1B	5C	nL	nH
Decimal	27	92	nL	nH

[Range]
0 ≤ nL ≤ 255
0 ≤ nH ≤ 255

[Description]
Sets the print starting position based on the current position by using the horizontal orvertical motion unit.
Sets the distance from the current position to [(nL+ nH × 256) × (horizontal or vertical motion unit)].

[Notes]
• It's possible to print further on the right margin set for every font. In this case the printing continues up to the maximum border of the printer mechanism and then begins a new row.
• Any setting that exceeds the printable area is ignored.
• When the starting position is specified by n motion units to the right: nL + nH × 256 = n
• When the starting position is specified by n motion units to the left (negative direction), use the complement of 65536: nL + nH × 256 = 65536 – n
• If setting exceeds the printing area width, the left or right margin is set to the default value.
• The horizontal and vertical motion unit are specified by $1D $50.
• $1D $50 can change the horizontal (and vertical) motion units. However, the value cannot be less than the minimum horizontal movement amount.
• In standard mode, the horizontal motion unit is used.
• Setting the right value, it's possible to print characters over the right edge.

[Default]

[Reference] $1B $24, $1D $50

[Example]

$1B $61

Devices: STIMA-CLS
STIMA-CMP

[Name] **Select justification**

[Format]

ASCII	ESC	a	n
Hex	1B	61	n
Decimal	27	97	n

[Range] 0 ≤ n ≤ 2
48 ≤ n ≤ 50

[Description] Aligns all data in one line to the specified position. *n* selects the type of justification as follows:

n	JUSTIFICATION
0, 48	Flush left
1, 49	Centred
2, 50	Flush right

[Notes]
- This command is only enabled when inserted at the beginning of a line.
- Lines are justified within the specified printing area.
- Spaces set by $09, $1B $24 and $1B $5C will be justified according to the previously-entered mode.

[Default] n = 0

[Reference]

[Example]

Flush left

```
ABC
ABCD
ABCDE
```

Centered

```
 ABC
ABCD
ABCDE
```

Flush right

```
  ABC
 ABCD
ABCDE
```

$1B $63 $35

Devices: STIMA-CLS
STIMA-CMP

[Name] **Enable/Disable keys panel**

[Format]

ASCII	ESC	c	5	n
Hex	1B	63	35	n
Decimal	27	99	53	n

[Range] 0 ≤ n ≤ 255

[Description] Enables / disables the keys panel.
- When the LSB of n is 0, the keys panel is enabled.
- When the LSB of n is 1, the keys panel is disabled.

[Notes]
- Only the LSB of n is effective.
- When the keys panel is disabled, the keys may only be used after the printer has been reset.

[Default] n = 0

[Reference]

[Example]

$1B $64

Devices: STIMA-CLS
STIMA-CMP

[Name] **Print and feed paper n rows**

[Format]

ASCII	ESC	d	n
Hex	1B	64	n
Decimal	27	100	n

[Range] 0 ≤ n ≤ 255

[Description] Prints the data in the print buffer and feeds the paper *n* rows.

[Notes]
- n rows paper feed is equivalent to (n × char height + line spacing set).
- Sets the print starting position at the beginning of the line.
- This command does not affect the line spacing set by $1B $32 or $1B $33.
- The maximum paper feed amount is 254 rows. Even if a paper feed amount of more than 254 rows is set, the printer feeds the paper only 254 rows.

[Default]

[Reference] $1B $32, $1B $33

[Example]

$1B $69

Devices: STIMA-CLS

[Name] **Total cut**

[Format]

ASCII	ESC	i
Hex	1B	69
Decimal	27	105

[Range]

[Description] This command prints the data in the buffer and enables cutter operation. If there is no cutter, a disabling flag is set and any subsequent cut commands will be ignored.

[Notes]
- The printer waits to complete all paper movement commands before it executes a total cut.

[Default]

[Reference]

[Example]

$1B $69

Devices: STIMA-CMP

[Name] **Presentation mode**

[Format]

ASCII	ESC	i
Hex	1B	69
Decimal	27	105

[Range]

[Description] This command activates the presentation mode of the ticket for the manual tear.

[Notes]

[Default]

[Reference]

[Example]

$1B $74

Devices: STIMA-CLS

STIMA-CMP

[Name] **Select character code table**

[Format]

ASCII	ESC	t	n
Hex	1B	74	n
Decimal	27	116	n

[Range] n = 0, 2, 3, 4, 5, 16, 17, 18, 19, 255

[Description] Select a page n from the chatacter code table as follows:

n	PAGE
0	0 (PC437 [U.S.A., Standard Europe])
2	2 (PC850 [Multilingual])
3	3 (PC860 [Portuguese])
4	4 (PC863 [Canadian-French])
5	5 (PC865 [Nordic])
16	16 (WPC1252)
17	17 (PC866 [Cyrillic #2])
18	18 (PC852 [Latin 2])
19	19 (PC858 for Euro symbol at position213)
255	Space page

[Notes] WPC1252, PC866 and PC852 tables are valid only for TrueType fonts.

[Default] n = 0

[Reference] See character code tables, $1C $65, $1C, $66

[Example] For printing Euro symbol (€), the command sequence is: $1B, $74, $13, $D5

$1B $76

Devices: STIMA-CLS

STIMA-CMP

[Name] **Transmit paper sensor status**

[Format]

ASCII	ESC	v
Hex	1B	76
Decimal	27	118

[Range]

[Description] When this command is received, transmit the current status of the paper sensor.

[Notes] This command is executed immediately, even when the data buffer is full (Busy). The status to be transmitted is shown in the table below:

BIT	OFF/ON	HEX	Decimal	FUNCTION
0,1	Off	00	0	Near paper-end sensor: paper present
	On	03	3	Near paper-end sensor: paper not present
2,3	Off	00	0	Paper-end sensor: paper present
	On	(0C)	(12)	Paper-end sensor: paper not present
4	Off	00	0	Not used. Fixed to Off
5	-	-	-	Undefined
6	-	-	-	Undefined
7	Off	00	0	Not used. Fixed to Off

[Default]

[Reference]

[Example]

$1B $7B

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Turn upside-down printing mode on/off**

[Format]

ASCII	ESC	{	n
Hex	1B	7B	n
Decimal	27	123	n

[Range] 0 ≤ n ≤ 255

[Description] Turns upside-down printing mode on or off.
- When the LSB of *n* is 0, the upside-down printing mode is off.
- When the LSB of *n* is 1, the upside-down printing mode is on.

[Notes]
- Only the LSB of *n* is effective.
- This command is valid only if entered at the beginning of a line.
- In upside-down printing mode, the printer rotates the line to be printed 180° and then prints it.

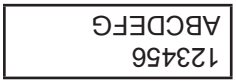
[Default] n = 0

[Reference]

[Example]

Upside-down printing Off

Upside-down printing On



$1B $C1

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set/cancel cpi mode**

[Format]

ASCII	ESC	{ }	n
Hex	1B	C1	n
Decimal	27	193	n

[Range] 0 ≤ n ≤ 1, 48 ≤ n ≤ 49

[Description] Sets cpi mode based on the following values of n:

n	FUNCTION
0, 48	Font A = 11 cpi Font B = 15 cpi
1, 49	Font A = 15 cpi Font B = 20 cpi

[Default] n = 0

[Reference] $1B $21

[Example]

$1C $3C

Devices: STIMA-CLS
STIMA-CMP

[Name] **Change printer emulation to SVELTA**

[Format]

ASCII	FS	<	S	V	E	L	>
Hex	1C	3C	53	56	45	4C	3E
Decimal	28	60	83	86	69	76	62

[Range]
[Description] Change the printer emulation to SVELTA emulation.
[Notes]
[Default]
[Reference]
[Example]

$1C $65

Devices: STIMA-CLS
STIMA-CMP

[Name] **Enable/Disable encoding**

[Format]

ASCII	FS	e	n
Hex	1C	65	n
Decimal	28	101	n

[Range] n = '0', '1', '2', 48, 49, 50
[Description] Enable/Disable the text encoding based on the following values of n:

n	ENCODING
0, 48	Disabled
1, 49	Enable UTF-8
2, 50	Enable UTF-16

[Notes]
- This command is valid only for TrueType fonts of monospace type.
- If the text encoding is disabled, manage the characters coding by $1B $52 and $1B $74 commands.
- If the text encoding is enabled, the character's addressing respects the UNICODE™ standard (see www.unicode.org).

[Default] Disabled.
[Reference] $1B $52, $1B $74, $1C $66
[Example]

$1C $66

Devices: STIMA-CLS
STIMA-CMP

[Name] **True Type font management**

[Format]

ASCII	FS	f	m	n	d[0]...d[n]
Hex	1C	66	m	n	d[0]...d[n]
Decimal	28	102	m	n	d[0]...d[n]

[Range] 0 ≤ m ≤ 256
0 ≤ n ≤ 64

[Description] Manage the TrueType fonts depending on the following values of m

m (BIT)	FUNCTION
0	Check glyph width
1	TTF enable hinting
2	Not used
3	Not used
4	Re-enable TrueType font
5	Disable TrueType font
6	De-init TrueType font
7	Clear all

n specifies the name length of the font to use.
d[0]...d[n] specifies the font name to use.

[Notes]
- If "Check glyph width" is selected, for every character, printer checks if the glyph width is different from default width. In this case, the font will be not installed. The check may require some time (it depends on the characters number of the font).
- For "Hinting" means the font adaptation to the grid. Whit hinting enabled, the characters are more legible but some characters may be too high (for example, the accented capital letters). This bit is active only when you install a new font.
- "Re-enable" function re-enables a TrueType font previously disabled.
- "Disable" function disables a TrueType font.
- "De-init" function uninstall a font and clear the memory used by the font. Use this function only when you intend to use the font more, otherwise use the "Disable" function to speed up operations.
- "Clear all" function unistall all the installed fonts.
- If command is successful the printer transmits the ACK ($06), otherwise return NACK ($015).
- After "Disable", "Re-enable" and "Clear-all" functions, do not pass the filename of the TrueType font.

[Default]

[Reference]

[Example]
- Select the TrueType font with dimensions check, without hinting:
  $1C $66 $01 $0C "veramono.ttf"
- Return to use the embedded fonts:
  $1C $66 $20 $00
- Select the font previously disabled:
  $1C $66 $10 $00
- Uninstall a TrueType font:
  $1C $66 $40 $0C

$1C $6C

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Reload paper**

[Format]

ASCII	FS	l
Hex	1C	6C
Decimal	28	108

[Range]

[Description] When this command is received, the printer performs a paper reloading.

[Notes] During the execution of the command, the printer indicates the paper end

[Default]

[Reference]

[Example]

$1C $80

Devices: STIMA-CLS
STIMA-CMP

[Name] **Read date/time of the real time clock**

[Format]

ASCII	FS	{ }	m
Hex	1C	80	m
Decimal	28	128	m

[Range] 0 ≤ m ≤ 3

[Description] Read date/time of the real time clock in the format specified by m values as follows:

m	FORMAT
0	DD/MM/YY hh:mm:ss
1	DDMMYYhhmmss
2	YYMMDDhhmmss
3	YYMMDDkkmmssd

where:

DD =	represents the day of the date
MM =	represents the month of the date
YY =	represents the year of the date
hh =	represents the hour of the time
mm =	represents the monutes of the time
ss =	represents the seconds of the time
d =	represents the day of the wee

[Notes] • Before send the date/time, if the m parameter is valid the printer transmits the ACK ($06) followed by the number of bytes to sent, otherwise return NACK ($015).

[Default]

[Reference]

[Example] To read date/time in the “DDYYMMhhmmss” format, transmit:

Host

HEX	$1C	$80	$01
ASCII	FS	{ }	m

For example if the current date/time are “15 September 2006 at 10:56:20 (AM)” the printer’s answer is as follows:

HEX	$06	$0C	$31	$35	$30	$39	$30	$36	$31	$30	$35	$36	$32	$30
ASCII	ACK	FF	1	5	0	9	0	6	1	0	5	6	2	0

$1C $81

Devices: STIMA-CLS

STIMA-CMP

[Name] **Read date/time of the real time clock**

[Format]

ASCII	FS	{ }	m	n	d0...dn
Hex	1C	81	m	n	d0...dn
Decimal	28	129	m	n	d0...dn

[Range] 0 ≤ m ≤ 3

0 ≤ d0, dn ≤ 255

[Description] Read date/time of the real time clock in the format specified by m values as follows:

m	FORMAT
0	DD/MM/YY hh:mm:ss
1	DDMMYYhhmmss
2	YYMMDDhhmmss
3	YYMMDDkkmmssd

where:

DD = represents the day of the date

MM = represents the month of the date

YY = represents the year of the date

hh = represents the hour of the time

mm = represents the monutes of the time

ss = represents the seconds of the time

d = represents the day of the week

• n specifies the number of characters to send.

• d0...dn are the ASCII characters relative to the date and time to set.

[Notes] • If the transmission has been received correctly and the command is valid, the printer returns the ACK ($06), otherwise return NACK ($015).

• the day of the week is calculated automatically from the printer and then it's possible that the returned value is different from the one transmitted.

[Default]

[Reference]

[Example] For example to set the date and time to "29 September 2006 at 13:51:00 (PM)" in the "YYMMDDhhmmss" format, transmit:

Host

Hex	$1C	$81	$02	$0C	$30	$36	$30	$39	$32	$39	$31	$33	$35	$31	$30	$30
ASCII	FS	{ }	STX	FF	0	6	0	9	2	9	1	3	5	1	0	0

The printer's answer ACK ($06) if the transmission is OK otherwise NACK ($15).

$1C $82

Devices:	STIMA-CLS		
	STIMA-CMP		
[Name]	**Print date**		
[Format]	ASCII	FS	{ }
	Hex	1C	82
	Decimal	28	130
[Range]			
[Description]	Prints date in the format specified by the command $1C $84 with the parameter n='D'.		
[Notes]			
[Default]	"dd/mm/yy"		
[Reference]	$1C $83, $1C $84		
[Example]			

$1C $83

Devices:	STIMA-CLS		
	STIMA-CMP		
[Name]	**Print time**		
[Format]	ASCII	FS	{ }
	Hex	1C	83
	Decimal	28	131
[Range]			
[Description]	Prints date in the format specified by the command $1C $84 with the parameter n='T'.		
[Notes]			
[Default]	"hh:mm:ss"		
[Reference]	$1C $82, $1C $84		
[Example]			

$1C $84

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set user-defined date/time formats**

[Format]

ASCII	FS	{ }	n	d1...dk	NUL
Hex	1C	84	n	d1...dk	$00
Decimal	28	132	n	d1...dk	0

[Range] n = ‘D’, n = ‘T’
0 ≤ d0, dK ≤ 255

[Description] Sets the format string for date and time used to printing ($1C $83, $1C $84).
• n specifies which user-defined string format is set
D for date
T for time
• d0..dk are the ASCII characters relative to user-defined date/time formats.
• The maximum length of the user-defined date/time format string is 64 chars.
• The following table shows characters used to create user-defined date/time formats:

CHARAC-TER	DESCRIPTION
I	Select italian language
E	Select english language (default language)
c	Select default data/time
d	Displays the day as a number without a leading zero (1-31).
dd	Displays the day as a number with a leading zero (01-31).
ddd	Displays the day as an abbreviation (for example, Sun).
dddd	Displays the day as a full name (for example, Sunday).
ddddd	Displays the date as a complete date in the short format where date values are formatted with day, month and year (the short date format is dd/mm/yy).
dddddd	Displays the date as a complete date in the extended format where date values are formatted with day, month and year (the extended date format is dd mmmm, yyyy).
m	Displays the month as a number without a leading zero (1-12). If the character m is immediately after the character h or hh ,displays the minutes instead of month (see also the n character formatting).
mm	Displays the month as a number with leading zeros (01-12). If the character m is immediately after the character h or hh , displays the minutes instead of month (see also the nn character formatting).
mmm	Displays the month as an abbreviation (for example, Jan).
mmmm	Displays the month as a full month name (for example, January).
yy	Displays the year in two-digit numeric format with a leading zero.
yyyy	Displays the year in four digit numeric format.

CHARAC-TER	DESCRIPTION
h	Displays the hour as a number without leading zeros (0-23)
hh	Displays the hour as a number with leading zeros (00-23)
n	Displays the minutes as a number without leading zeros (0-59)
nn	Displays the minutes as a number with leading zeros (00-59)
s	Displays the seconds as a number without leading zeros (0-59)
ss	Displays the seconds as a number with leading zeros (00-59)
ttttt	Displays the time in the extended format where time values are formatted with hour, minutes and seconds (the extended time format is h:mm:ss).
AM/PM	Using the 12-hour clock and displays the AM prefix in uppercase next to the hours that preceding mid-day and the PM prefix in uppercase next to the hours between midday and midnight.
am/pm	Using the 12-hour clock and displays the am prefix in lowercase next to the hours that preceding midday and the pm prefix in lowercase next to the hours between midday and midnight.
A/P	Using the 12-hour clock and displays the A prefix in uppercase next to the hours that preceding midday and the a prefix in uppercase next to the hours between midday and midnight.
a/p	Using the 12-hour clock and displays the a prefix in lowercase next to the hours that preceding midday and the a prefix in lowercase next to the hours between midday and midnight.

[Notes]
[Default]
[Reference]
[Example]

For example to print the current time with the string format ‘yy/mm/dd hh:mm:ss’ follow these steps :
1. Send the following command to define the user-defined Time string format:

HEX	$1C	$84	$54	$79	$79	$2F	$6D	$6D	$2F	$64	$64	$20
ASCII	FS	{}	T	y	y	/	m	m	/	d	d	h

$68	$68	$3A	$6E	6E	$3A	$73	$73	$00			
h	:	n	n	:	s	s	NUL				

The printer’s answer ACK ($06) if the transmission is OK otherwise NACK($15).

2. Send the following command to print the time :

HEX	$1C	$83	$0A
ASCII	FS	{ }	LF

Note : The character $0A feeds one line based on the current line spacing.
If the date and time is 22 October 2006 at 17:35:27 (PM) the output string printed will be: 06/10/22 17:35:27

$1C $90

Devices: STIMA-CLS
STIMA-CMP

[Name] **Get number of stored logo**
[Format] ASCII FS { }
Hex 1C 90
Decimal 28 144
[Range]
[Description] This command sends to the printer the request of number of stored logo; the printer returns a bytes sequence as follows : <PN*n*>
where *n* (in ASCII format) indicates the number of stored images.
[Notes]
[Default]
[Reference]
[Example] If in the flash memory are stored 10 logos send this command :

HEX	$1C	$90
ASCII	FS	{ }

The printer's answer will be :

HEX	$3C	$50	$4E	$31	$30	$3E
ASCII	<	P	N	1	0	>

$1C $91

Devices: STIMA-CLS
STIMA-CMP

[Name] **Get pictures header list**
[Format] ASCII FS { }
Hex 1C 91
Decimal 28 145
[Range]
[Description] This command requests to the printer the list of stored logo. The printer returns a bytes sequence as follows : <PL *CrLf [N-ID CrLf]*>
where:
CrLf indicates the two characters $0D (Carriage return) and $0A (Line Feed);
N is the number of stored logo;
[ID] indicates the file-name that identify the logo, a sequence of 16 bytes that was defined when the logo is stored. This field is optional because it's returned only if the logo has been found.
[Notes]
[Default]
[Reference] $1C $92, $1C $94
[Example]

$1C $92

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Get pictures header info**

[Format]

ASCII	FS	{ }	nH	nL
Hex	1C	92	nH	nL
Decimal	28	146	nH	nL

[Range] 0 ≤ nH, nL ≤ 255

[Description] Gets the logo header info stored specified by n.
• n is the number of stored logo;
• The printer returns a byte sequence as follows :
<PIe*[ID]*>

where:

e indicates the search result
e = 0 picture not found
e = 1 picture found

[ID] indicates the file-name that identify the logo, a sequence of 16 bytes that was defined when the logo is stored. This field is optional because it's returned only if the logo has been found.

[Notes]
[Default]
[Reference]
[Example]

$1C $93

Devices: STIMA-CLS

STIMA-CMP

[Name] **Print logo**

[Format]

ASCII	FS	{ }	nH	nL	opt	sp	posH	posL
Hex	1C	93	nH	nL	opt	sp	posH	posL
Decimal	28	147	nH	nL	opt	sp	posH	posL

[Range] 0 ≤ nH, nL ≤ 255

[Description] Prints logo defined by n.

• n is the number of image to print;

• opt is the option byte that specifies justification and rotation as shown in the following table:

BIT	DESCRIPTION	BIN	FUNCTION
0,1	Justification	00	Left
		01	Center
		10	Right
		11	User Define (on the basis of position specified by posH and posW)
2, 3	N.U.	00	Not used.
4, 6	N.U.	00	Not used.
7	Rotated print	0	Print normal.
		1	Print rotate.

• sp specifies the thickness of the image border.

• posH, posL specifies the logo's horizontal position (from the left border); used only with user-defined justification.

[Notes]

[Default]

[Reference]

[Example]

Example 1:

To print logo no.10 centered and rotated transmits :

$1C $93 $00 $0A $81 $01 $00 $00

where

$1C $93 //print logo command

$00 $0A //Logo no. 10

$81 //printing rotated and centered

$01 //1 pixel of image border

$00 $00 //Positioning not used

Example 2:

To print logo no.10 not rotated and with a user-defined printing position transmits:

$1C $93 $00 $0A $03 $01 $00 $50

where

$1C $93 //print logo command

$00 $0A //Logo no. 10

$03 //printing with a user define positioning and not rotated

$01 //1 pixel of image border

$00 $50 //Printing 10mm from the left border

$1C $94

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Save the image received from serial port into the flash**

[Format]

ASCII	FS { } nH nL xDimH xDimL yDimH yDimL TbdH TbdL Id0..Idn d0..dn >
Hex	1C 94 nH nL xDimH xDimL yDimH yDimL TbdH TbdL Id0..Idn d0..dn 3E
Decimal	28 148 nH nL xDimH xDimL yDimH yDimL TbdH TbdL Id0..Idn d0..dn 62

[Range]
0 ≤ nH, nL ≤ 255,
0 ≤ xDimH, xDimL ≤ 255,
0 ≤ yDimH, yDimL ≤ 255
0 ≤ d0, dn ≤ 255

[Description]
Saves the image received from serial port into the printer flash; if the number used to store logo is not already present inside the printer, the new logo is appended to stored logos. Otherwise the new logo is updated.
• *nH* and *nL* indicates the number of logo (2 bytes expressed in hexadecimal notation).
• *xDimH* and *xDimL* indicate the logo horizontal dimension in pixel (2 bytes expressed in hexadecimal notation); the value must be multiple of 16.
• *yDimH* and *yDimL* indicates the logo vertical dimension in pixel (2 bytes expressed in hexadecimal notation).
• *TbdH* and *TbdL* 2 bytes fixed to $00 (RESERVED)
• *Id0..Idn* indicates the file-name of the logo, a sequence of 16 bytes to identify univocally the logo.
• *d0 ...dn* are the image data. The size of image is defined as follows :
xSize = xDim /16; number of WORD (16 bit) in a horizontal image line
Total Size = (xSize * yDim) *2;
• *'>' is* the character terminator (in ASCII) of this command.
The printer returns a sequence of bytes as follows :
<PC0> if the saving include an incorrect syntax or the memory in flash available for logos is finished (128Kbyte);
<PC1n> if the syntax command is correct and there's memory enough in flash for saving logos; n returns the status of the flash programming :
$88 -> sector not erased
$77 -> error during programming
$AA -> Programming done.

[Notes]
• If file-name length is shorter than 16 byte, add a terminator (0) and make padding to 16 characters.
• If file-name extension is absent, it is automatically added to the name.

[Default]

[Reference]

[Example] The following example shows the bytes sequence received from serial port to store a logo into the printer flash :

```
Offset          Hexadecimal                                          ASCII
00000000: 1C 94 00-08 01 C0 02-49 00 00 4C-6F 67 6F 32 36   °°°´+^ILogo-26
00000010: 2E 42 4D-50 00 00 00-00 00 00 00-00 00 00 00 00   .BMP
00000020: 00 00 00-00 00 00 00-00 00 00 00-00 00 00 00 00
....                                                        Image data
....
....
00008000: 00 00 00 00-00 00 00 00-00 00 00 00-00 00 00 00
00008010: 00 00 3E                                          >
```

If the programming is successful, the printer's answer will be :

HEX	$3C	$50	$43	$31	$AA	$3E
ASCII	<	P	C	1	{}	>

$1C $B0

Devices: STIMA-CLS *(only for models with BARCODE reader)*

[Name] **Sets the barcode reader status.**

[Format]

ASCII	FS	{ }	n
Hex	1C	B0	n
Decimal	28	176	n

[Range] $30 ≤ n ≤ $36

[Description] This command sets the operating status of the barcode reader; n identifies the status of the barcode setting as follows :

$30 *TRIGGER ON/OFF*:
Every trigger the barcode reader toggle the previous status.

$31 *GOOD READ OFF*:
Every trigger the barcode reader is turn ON and switch off after a timeout (standard) or after a correct reading.

$32 *CONTINUOUS TRIGGER OFF*:
Every trigger the barcode reader toggle the previous status.

$33 *CONTINUOUS / AUTO POWER ON*:
The barcode reader remains power on.

$34 *FLASH*:
Every trigger the barcode keeps scanning. The scanner flashes the light source when no code is decoded after the timeout duration elapsed. This mode can save the power resource and extend the operation life of the light source. The scanner can be waked up when there is a successful reading or with a trigger.

$35 *TESTING*:
If the barcode reader recognize a correct barcode the reading operation is not single, like the trigger on/off state, but is made permanent until the barcode is removed.

$36 *FLASH/AUTO POWER ON*:
The barcode reader remains in a continuous flashing condition, when occurs a reading the barcode reader is turned ON. This condition still stays for a standard timeout, then the barcode reader returns in a flashing condition.

[Notes] • The execution of this command clears the output buffer of barcode reader; if a scansion is executed without data acquisition by the host, all data read are deleted.
The printer returns a byte:

ACK ($06)	The command is executed successfully.
NACK($15)	The command is not executed successfully.
$FF	The n parameter send is not valid
$FE	The barcode reader is not working or it not installed on the printer.

[Default]
[Reference]
[Example]

$1C $B1

Devices: STIMA-CLS *(only for models with BARCODE reader)*

[Name] **Get barcode reader status.**

[Format]

ASCII	FS	{ }	n
Hex	1C	B1	n
Decimal	28	177	n

[Range] $30 ≤ n ≤ $34

[Description] Reads the barcode reader parameters in base of n value :

n = $30 *STATUS*:

Reads the barcode reader status. It returns :

• NACK ($15) character if the command is not successful

• $FE character if the barcode reader is not working or it not installed on the printer.

• ACK ($06) character, followed by a status byte; the status to be transmitted is shown in the table below:

BIT	VALUE	FUNCTION
0, 1, 2	$00	TRIGGER ON/OFF
	$01	GOOD READ OFF
	$02	CONTINUOUS TRIGGER OFF
	$03	CONTINUOUS / AUTO POWER ON
	$04	FLASH
	$05	TESTING
	$06	FLASH / AUTO POWER ON
	$07	RESERVED
3	0	PE Off
	1	PE On
4	0	TG Off
	1	TG On
5	0	Decode OK
	1	Decode error
6, 7	-	RESERVED

• The execution of this command clears the ouput buffer of barcode reader; if a scansion is executed without data acquisition by the host, all data read are deleted.

n = $31 *BYTES ON RECEPTION BUFFER:*

Indicates the number of bytes sent from barcode reader. It returns :

• NACK ($15) character if the command is not successful or the buffer is empty

• $FE character if the barcode reader is not working or it not installed on the printer.

• ACK ($06) character, followed by one byte that Indicates the number of bytes send from barcode reader.

n = $32 *BYTES READING ON OUTPUT FROM BARCODE READER*

Indicates the number of bytes sent from barcode reader. It returns :

• NACK ($15) character if the command is not successful or the buffer is empty

• $FE character if the barcode reader is not working or it not installed on the printer.

• ACK ($06) character, followed by a bytes sequence B1, B2, ...Bn where n are the bytes on output from barcode reader.

n = $33 *DELETE BYTES ON OUTPUT*
This command deletes all bytes on the output buffer from the barcode reader. It returns
• NACK ($15) character if the command is not successful.
• $FE character if the barcode reader is not working or it not installed on the printer.
• ACK ($06) character if the command is successful.

n = $34 *READING OF ONE BYTE ON OUTPUT FROM BARCODE READER*
This command reads one byte on output from barcode reader. It returns :
• NACK ($15) character if there are no bytes on output from barcode reader.
• $FE character if the barcode reader is not working or it not installed on the printer.
• ACK ($06) character, followed by one byte that is the first byte present on the output FIFO from barcode reader.

[Notes] • with n = $30 after the barcode reader executes this command, emits a beep as acoustic signalling.

[Default]
[Reference] $FS $B0
[Example]

$1C $B2

Devices: STIMA-CLS *(only for models with BARCODE reader)*

[Name] **Barcode reader Trigger.**

[Format]

ASCII	FS	{ }
Hex	1C	B2
Decimal	28	178

[Range]
[Description] This command execution forces a trigger of barcode reader. It returns:
• NACK ($15) character if the command is successful.
• $FE character if the barcode reader is not working or it not installed on the printer.
• ACK ($06) character, if the command is successful.

[Notes] • A trigger event may be effect on barcode reader setting, depending on the barcode reader status.
• The execution of this command clears the ouput buffer of barcode reader; if a scansion is executed without data acquisition by the host, all data read are deleted.

[Default]
[Reference] $FS $B0
[Example]

$1C $C0

Devices: STIMA-CLS

STIMA-CMP

[Name] **Hardware reset**

[Format]

❶	ASCII	FS	{ }	$18	$10	$14	$1A
	Hex	1C	C0	18	10	14	1A
	Decimal		28	192	16	20	26
❷	ASCII	FS	{ }	$18	$10	$14	$1B
	Hex	1C	C0	18	10	14	1B
	Decimal		28	192	16	20	27

[Range]

[Description] When this command is received, the printer perform an hardware reset (like a printer power-up).

[Notes]
- This command is executed immediately, even when the data buffer is full (Busy).
- ❶ The command execution stop the communication with HOST;
- ❷ The command execution keep the communication with HOST active.

[Default]

[Reference]

[Example]

$1C $C1

Devices: STIMA-CLS

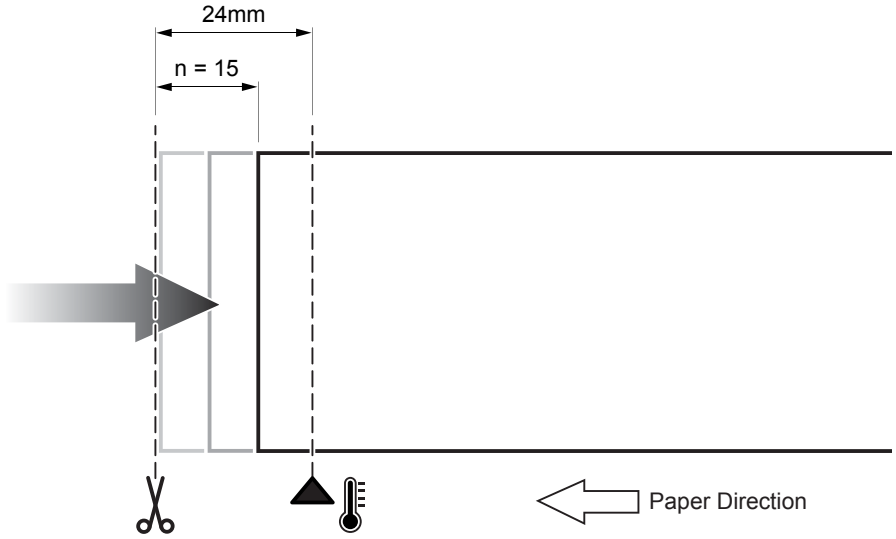
[Name] **Paper recovery after cut**

[Format]

ASCII	FS	{ }	n
Hex	1C	C1	n
Decimal	28	193	n

[Range] 0 ≤ n ≤ 24

[Description] Set the paper moving (in mm) toward the print head after the paper cut.



[Notes]
- Set n = 24 to complete recover the paper.
- WARNING: setting n = 24 is not recommended for paper roll with low weight.

[Default] n = 15 mm

[Reference]

[Example]

$1D $21

Devices: STIMA-CLS
STIMA-CMP

[Name] **Select character size**

[Format]

ASCII	GS	!	n
Hex	1D	21	n
Decimal	29	33	n

[Range] 0 ≤ n ≤ 7, 16 ≤ n ≤ 23, 32 ≤ n ≤ 39,
48 ≤ n ≤ 55, 64 ≤ n ≤ 71, 80 ≤ n ≤ 87,
96 ≤ n ≤ 103, 112 ≤ n ≤ 119

STIMA-CLS
0 ≤ n ≤ 255

[Description] Selects character height and width, as follows:
• Bits 0 to 3: to select character height (see table 2).
• Bits 4 to 7: to select character width (see table 1).

Table 1 Select character width

HEX	Decimal	WIDTH
00	0	1 (normal)
10	16	2 (width = 2x)
20	32	3 (width = 3x)
30	48	4 (width = 4x)
40	64	5 (width = 5x)
50	80	6 (width = 6x)
60	96	7 (width = 7x)
70	112	8 (width = 8x)

Table 2 Select character height

HEX	Decimal	HEIGHT
00	0	1 (normal)
01	1	2 (height = 2x)
02	2	3 (height = 3x)
03	3	4 (height = 4x)
04	4	5 (height = 5x)
05	5	6 (height = 6x)
06	6	7 (height = 7x)
07	7	8 (height = 8x)

[Notes] • This command is effective for all characters (except HRI characters).
• If *n* falls outside the defined range, this command is ignored.
• Characters enlarged to different heights on the same line are aligned at the baseline or top-line.
• $1B $21 can also be used to select character size. However, the setting of the last received command is the effective one.

[Default] n = 0

[Reference] $1B $21

[Example]

$1D $28 $6B

Devices: STIMA-CLS

STIMA-CMP

[Name] **Print two-dimensional barcode**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn
Hex	1D	28	6B	pL	pH	cn	fn
Decimal	29	40	107	pL	pH	cn	fn

[Range]

[Description] Processes the data concerning two-dimensional barcode.

- Symbol type is specified by *cn*
- Function is specified by *fn*

cn	fn	FUNCTION	
48	65	Function 065	PDF 417: Specify the number of columns
48	66	Function 066	PDF 417: Specify the number of rows
48	67	Function 067	PDF 417: Specify the width of module
48	68	Function 068	PDF 417: Specify the module height
48	69	Function 069	PDF 417: Specify the error correction level
48	80	Function 080	PDF 417: Store the received data in the symbol save area
48	81	Function 081	PDF 417: Print the symbol data in the symbol save area
49	65	Function 065	QRcode: Specify encoding scheme
49	66	Function 066	QRcode: Specify dot size
49	67	Function 067	QRcode: Specify symbol size
49	69	Function 069	QRcode: Specify the error correction level
49	80	Function 080	QRcode: Store the received data in the symbol save area
49	81	Function 081	QRcode: Print the symbol data
51	65	Function 365	DATAMATRIX: Set encoding scheme
51	66	Function 366	DATAMATRIX: Set rotate
51	67	Function 367	DATAMATRIX: Set dot size
51	68	Function 368	DATAMATRIX: Set symbol size
51	80	Function 380	DATAMATRIX: Store the received data in the symbol save area
51	81	Function 381	DATAMATRIX: Print the symbol data in the symbol save area
52	65	Function 065	AZTEC: Specify encoding scheme
52	67	Function 067	AZTEC: Specify dot size
52	68	Function 068	AZTEC: Specify symbol size
52	69	Function 069	AZTEC: Specify the error correction level
52	80	Function 080	AZTEC: Store the received data in the symbol save area
52	81	Function 081	AZTEC: Print the symbol

[Notes]

[Default]

[Reference]

[Example]

$1D $28 $6B [function 065]

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Specify the number of columns of PDF417 symbol**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 48
fn = 65
0 ≤ n ≤ 30

[Description] Specifies the number of columns of PDF417 barcode.
- *n* = 0 specifies auto processing
- When n is not 0, specifies the number of columns of the data area as n code word.
- When auto processing (n = 0) is specified, the maximum number of columns in the data area is 30 columns.

[Notes]
- The following data is not included in the number of columns:
  - start pattern and stop pattern
  - indicator code word of left and right
- Settings are effective until ESC @ is executed, the printer is reset or the power is turned off.

[Default] n = 0

[Reference] $1D $28 $6B

[Example] To define 3 columns, the command sequence is : $1D $28 $6B $03 $00 $30 $41 $03

$1D $28 $6B [function 065]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify encoding scheme of AZTEC symbol**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 52 fn = 65
0 ≤ n ≤ 1

[Description] Specifies encoding type of AZTEC barcode.

n	ENCODING SCHEME
0	FULL AZTEC
1	AZTEC RUNE

[Notes]
- Full Aztec: Encode all extended ASCII characters data up to a maximum lenght of approximately 3823 numeric or 3067 alphabetic characters or 1914 bytes of data.
- Aztec Rune (Compact Aztec Code, sometimes called Small Aztec Code): Encode all numbers from 0 to 255 up to a maximum lenght of 3 numbers.

[Default] n = 0
[Reference]
[Example]

$1D $28 $6B [function 065]

Devices: STIMA-CLS

STIMA-CMP

[Name] **Specify encoding scheme of QRcode symbol**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 49 fn = 65
0 ≤ n ≤ 1

[Description] Specifies encoding type of QRcode barcode.

n	ENCODING SCHEME
0	QRcode
1	MicroQR

[Notes]
- QRcode: Encode all extended ASCII characters data up to a maximum length of 7089 numeric digits, 4296 alphabetic characters or 2953 bytes of data.
- MicroQR (a miniature version of the QRcode symbol for short message): Encode all numbers from 0 to 255 up to a maximum length of 35 characters.

[Default] n = 0

[Reference]

[Example]

$1D $28 $6B [function 066]

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Specify the number of rows of PDF417 symbol**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 48
fn = 66
n = 0, 3 ≤ n ≤ 20

[Description] Specifies the number of rows of PDF417 barcode.
- *n* = 0 specifies auto processing
- When n is not 0, specifies the number of rows of the data area as n rows.
- When auto processing (n = 0) is specified, the maximum number of rows is 90.

[Notes]
- Settings are effective until ESC @ is executed, the printer is reset or the power is turned off.

[Default] n = 0

[Reference] $1D $28 $6B

[Example] To define 3 rows, the command sequence is : $1D $28 $6B $03 $00 $30 $42 $03

$1D $28 $6B [function 066]

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Specify dot size of QRcode symbol**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 49
fn = 66
2 ≤ n ≤ 24

[Description] Specifies numbers of dot for each pixel of QRcode symbol.

[Notes]

[Default] n = 0

[Reference]

[Example]

$1D $28 $6B [function 067]

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Specify the width of a module of PDF417 symbol**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 48
fn = 67
2 ≤ n ≤ 8

[Description] Specifies the width of a module of PDF417 symbol.

[Notes]
- Settings are effective until ESC @ is executed, the printer is reset or the power is turned off.

[Default] n = 3

[Reference] $1D $28 $6B

[Example] To set width = 4, the command sequence is : $1D $28 $6B $03 $00 $30 $43 $04

$1D $28 $6B [function 067]

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Specify dot size of AZTEC symbol**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 52
fn = 67
2 ≤ n ≤ 24

[Description] Specifies numbers of dot for each pixel of AZTEC symbol.

[Notes]

[Default] n = 0

[Reference]

[Example]

$1D $28 $6B [function 067]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify QRcode symbol size**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 49
fn = 67
0 ≤ n ≤ 40

[Description] Specifies QRcode barcod eversion, as follows:

n	VERSION
0	AUTO
1	V1
2	V2
3	V3
4	V4
5	V5
6	V6
7	V7
8	V8
9	V9
10	V10
11	V11
12	V12
13	V13

n	VERSION
14	V14
15	V15
16	V16
17	V17
18	V18
19	V19
20	V20
21	V21
22	V22
23	V23
24	V24
25	V25
26	V26
27	V27

n	VERSION
28	V28
29	V29
30	V30
31	V31
32	V32
33	V33
34	V34
35	V35
36	V36
37	V37
38	V38
39	V39
40	V40

[Notes]
[Default] n = 0
[Reference]
[Example]

$1D $28 $6B [function 068]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify the height of PDF417 symbol**

[Format]								
ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 48
fn = 68
2 ≤ n ≤ 8

[Description] Specifies the height of PDF417 symbol.

[Notes] • Settings are effective until ESC @ is executed, the printer is reset or the power is turned off.

[Default] n = 3

[Reference] $1D $28 $6B

[Example] To set height = 4, the command sequence is : $1D $28 $6B $03 $00 $30 $44 $04

$1D $28 $6B [function 068]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify AZTEC symbol size**

[Format]								
ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 52
fn = 68
0 ≤ n ≤ 36

[Description] Specifies AZTEC barcode format (rows and columns), as follows:

n	FORMAT
0	AUTO
1	C15X15 Compact
2	C19X19 Compact
3	C23X23 Compact
4	C27X27 Compact
5	C19X19
6	C23X23
7	C27X27
8	C31X31
9	C37X37
10	C41X41
11	C45X45
12	C49X49

n	FORMAT
13	C53X53
14	C57X57
15	C61X61
16	C67X67
17	C71X71
18	C75X75
19	C79X79
20	C83X83
21	C87X87
22	C91X91
23	C95X95
24	C101X101
25	C105X105

n	FORMAT
26	C109X109
27	C113X113
28	C117X117
29	C121X121
30	C125X125
31	C131X131
32	C135X135
33	C139X139
34	C143X143
35	C147X147
36	C151X151

[Notes]

[Default] n = 0

[Reference]

[Example]

$1D $28 $6B [function 069]

Devices: STIMA-CLS

STIMA-CMP

[Name] **Specify the error correction level (PDF417)**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	m	n
Hex	1D	28	6B	pL	pH	cn	fn	m	n
Decimal	29	40	107	pL	pH	cn	fn	m	n

[Range]
(pL+pH × 256) = 4 (pL = 4, pH = 0)
cn = 48 fn = 69
m = 48 48 ≤ n ≤ 56
m = 49 1 ≤ n ≤ 40

[Description] Specifies the error correction level of PDF417.
- The error correction level is specified by "level" when m = 48.
- The error correction level is specified by "ratio" when m = 49 [n × 10%].

[Notes]
- Error correction level is specified by either "level" or "ratio".
- Error correction level specified by "level" (m = 48) is as follows. The number of the error correction code word is fixed regardless of the number of code words on the data area.

n	CORRECTION LEVEL	N. OF ERROR CORRECTION CODE WORD
48	Error correction level 0	2
49	Error correction level 1	4
50	Error correction level 2	8
51	Error correction level 3	16
52	Error correction level 4	32
53	Error correction level 5	64
54	Error correction level 6	128
55	Error correction level 7	256
56	Error correction level 8	512

- Error correction level specified by "ratio" (m = 49) is as follows. The error correction level is defined by the calculated value [number of data code word × n × 0.1 = (A)]. The number of the error correction code word is changeable in proportion to the number of the code words on the data area.

CALCULATED VALUE (A)	CORRECTION LEVEL	N. OF ERROR CORRECTION CODE WORD
0 - 3	Error correction level 1	4
4 - 10	Error correction level 2	8
11 - 20	Error correction level 3	16
21 - 45	Error correction level 4	32
46 - 100	Error correction level 5	64
101 - 200	Error correction level 6	128
201 - 400	Error correction level 7	256
> 400	Error correction level 8	512

- Settings are effective until ESC @ is executed, the printer is reset or the power is turned off.

[Default] m = 49, n = 1 [ratio: 10%]

[Reference] $1D $28 $6B

[Example] To set error correction=0,2 the command sequence is :$1D $28 $6B $03 $00 $30 $45 $30 $02

$1D $28 $6B [function 069]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify the error correction level (AZTEC)**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 4 (pL = 4, pH = 0)
cn = 52
fn = 69
0 ≤ n ≤ 4

[Description] Specifies the ECC level (Error Correction Capacity) of AZTEC symbol.

n	ECC level
0	AUTO
1	> 10 % + 3 codewords
2	> 23 % + 3 codewords
3	> 36 % + 3 codewords
4	> 50 % + 3 codewords

[Notes]
- It is not possible to select both symbol size and error correction capacity for the same symbol. If both options are selected then the error correction capacity selection will be ignored.

[Default] n = 0

[Reference]

[Example]

$1D $28 $6B [function 069]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify the error correction level (QRcode)**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 4 (pL = 4, pH = 0)
cn = 49
fn = 69
0 ≤ n ≤ 4

[Description] Specifies the ECC level (Error Correction Capacity) of QRcode symbol.

n	ECC level	
0	AUTO	
1	ECC = approx 20% of symbol	Recovery Capacity = approx 7%
2	ECC = approx 37% of symbol	Recovery Capacity = approx 15%
3	ECC = approx 50% of symbol	Recovery Capacity = approx 25%
4	ECC = approx 65% of symbol	Recovery Capacity = approx 30%

[Notes]

[Default] n = 0

[Reference]

[Example]

$1D $28 $6B [function 080]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Store the PDF417 symbol data in the symbol save area**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	m	d1...dk
Hex	1D	28	6B	pL	pH	cn	fn	m	d1...dk
Decimal	29	40	107	pL	pH	cn	fn	m	d1...dk

[Range] 4 ≤ (pL+pH × 256) ≤ 65535 (0 ≤ pL ≤ 255, 0 ≤ pH ≤ 255)
cn = 48
fn = 80
m = 48
0 ≤ d ≤ 255
k = (pL + pH × 256) - 3

[Description] Store the PDF417 symbol data (d1...dk) in the symbol save area.

[Notes]
- Data stored in the symbol save area by this function are processed by Function 081. The data in the symbol save area are reserved after processing Function 081.
- k bytes of d1...dk are processed as symbol data.
- Specify only the data code word of the symbol with this function. Be sure not to include the control data in the data d1...dk because they are added automatically by the printer.
- Settings are effective until ESC @ is executed, the printer is reset or the power is turned off.

[Default]

[Reference] $1D $28 $6B

[Example]

$1D $28 $6B [function 080]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Store the AZTEC symbol data in the symbol save area**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	m	d1...dk
Hex	1D	28	6B	pL	pH	cn	fn	m	d1...dk
Decimal	29	40	107	pL	pH	cn	fn	m	d1...dk

[Range] 4 ≤ (pL+pH × 256) ≤ 65535 (0 ≤ pL ≤ 255, 0 ≤ pH ≤ 255)
cn = 52
fn = 80
m = 52
0 ≤ d ≤ 255
k = (pL + pH × 256) - 3

[Description] Store the AZTEC symbol data (d1...dk) in the symbol save area.

[Notes]
- Data stored in the symbol save area by this function are processed by Function 081. The data in the symbol save area are reserved after processing Function 081.
- k bytes of d1...dk are processed as symbol data.
- Specify only the data code word of the symbol with this function.

[Default]
[Reference]
[Example]

$1D $28 $6B [function 080]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Store the QRcode symbol data in the symbol save area**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	m	d1...dk
Hex	1D	28	6B	pL	pH	cn	fn	m	d1...dk
Decimal	29	40	107	pL	pH	cn	fn	m	d1...dk

[Range] 4 ≤ (pL+pH × 256) ≤ 65535 (0 ≤ pL ≤ 255, 0 ≤ pH ≤ 255)
cn = 49
fn = 80
m = 49
0 ≤ d ≤ 255
k = (pL + pH × 256) - 3

[Description] Store the QRcode symbol data (d1...dk) in the symbol save area.

[Notes]
- Data stored in the symbol save area by this function are processed by Function 081. The data in the symbol save area are reserved after processing Function 081.
- k bytes of d1...dk are processed as symbol data.
- Specify only the data code word of the symbol with this function.

[Default]
[Reference]
[Example]

$1D $28 $6B [function 081]

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Encodes and prints the PDF417 symbol data in the symbol save area**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	m
Hex	1D	28	6B	pL	pH	cn	fn	m
Decimal	29	40	107	pL	pH	cn	fn	m

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 48
fn = 81
m = 48

[Description] Encodes and prints the PDF417 symbol data in the symbol save area.

[Notes]
- In standard mode, use this function when printer is "at the beginning of a line" or "there is no data in the print buffer".
- A symbol that size exceeds the printing area cannot be printed.
- If there is any error described below in the data of the symbol save area, it cannot be printer.
  - There is no data (Function 080 is not processed).
  - If [(number of columns × number of rows) < number of code word] when auto processing is specified for number of columns and number of rows.
  - Number of code word exceeds 928 in the data area.
- When auto processing (Function 065) is specified, the number of columns is calculated by the current printing area, module width (Function 067) and the code word in the data area. Maximum number of the columns is 30.

[Default]

[Reference] $1D $28 $6B

[Example] To print the PDF417 symbol data the command sequence is : $1D $28 $6B $03 $00 $30 $51 $30

$1D $28 $6B [function 081]

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Prints the AZTEC symbol data**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	m
Hex	1D	28	6B	pL	pH	cn	fn	m
Decimal	29	40	107	pL	pH	cn	fn	m

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 52
fn = 81
m = 48

[Description] Prints the AZTEC symbol in the current position.

[Notes]

[Default]

[Reference]

[Example]

$1D $28 $6B [function 081]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Prints the QRcode symbol data**

[Format]								
ASCII	GS	(	k	pL	pH	cn	fn	m
Hex	1D	28	6B	pL	pH	cn	fn	m
Decimal	29	40	107	pL	pH	cn	fn	m

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 49
fn = 81
m = 49

[Description] Prints the QRcode symbol in the current position.
[Notes]
[Default]
[Reference]
[Example]

$1D $28 $6B [function 365]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify the encoding scheme of DATAMATRIX symbol**

[Format]								
ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 51
fn = 65
0 ≤ n ≤ 6

[Description] Set the encoding scheme specified by n as follows:

n	ENCODING SCHEME
0	Ascii
1	C40
2	Text
3	X12
4	Edifact
5	Base256
6	AutoBest

[Notes]
[Default]
[Reference] $1D $28 $6B
[Example] To set encoding = Ascii, the command sequence is: $1D $28 $6B $03 $00 $33 $41 $00

$1D $28 $6B [function 366]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Set rotation of DATAMATRIX symbol**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 51
fn = 66
n = 0, 1

[Description] Set rotate by n as follows:

n	ROTATION
0	No rotation
1	Rotation

[Notes]
[Default]
[Reference] $1D $28 $6B
[Example]

$1D $28 $6B [function 367]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Set dot size of DATAMATRIX symbol**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 51
fn = 67
2 ≤ n ≤ 24

[Description] Set dot size.
n = dot dimension

[Notes]
[Default] n = 6
[Reference] $1D $28 $6B
[Example] To set dot symbol size = 6 the command sequence is : $1D $28 $6B $03 $00 $33 $43 $06

$1D $28 $6B [function 368]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Set symbol size of DATAMATRIX symbol**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	n
Hex	1D	28	6B	pL	pH	cn	fn	n
Decimal	29	40	107	pL	pH	cn	fn	n

[Range]
cn = 51
fn = 68
1 ≤ n ≤ 29

[Description] Set the symbol size of DATAMATRIX symbol specified by n as follows:

n	SYMBOL SIZE
1	10 x 10
2	12 x 12
3	14 x 14
4	16 x 16
5	18 x 18
6	20 x 20
7	22 x 22
8	24 x 24
8	26 x 26
10	32 x 32
11	36 x 36
12	40 x 40
13	44 x 44
14	48 x 48
15	52 x 52

n	SYMBOL SIZE
16	64 x 64
17	72 x 72
18	80 x 80
19	88 x 88
20	96 x 96
21	104 x 104
22	120 x 120
23	132 x 132
24	144 x 144
25	8 x 18
26	8 x 32
27	12 x 26
28	12 x 36
29	16 x 36

[Notes]
[Default] DmtxSymbolSquareAuto
[Reference] $1D $28 $6B
[Example]

$1D $28 $6B [function 380]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Store the DATAMATRIX symbol data in the symbol save area**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	m	d1...dk
Hex	1D	28	6B	pL	pH	cn	fn	m	d1...dk
Decimal	29	40	107	pL	pH	cn	fn	m	d1...dk

[Range] 4 ≤ (pL+pH × 256) ≤ 65535 (0 ≤ pL ≤ 255, 0 ≤ pH ≤ 255)
cn = 51
fn = 80
m = 51
0 ≤ d ≤ 255
k = (pL + pH × 256) - 3

[Description] Store the DATAMATRIX symbol data (d1...dk) in the symbol save area.

[Notes]
- Data stored in the symbol save area by this function are processed by Function 081. The data in the symbol save area reserved after processing Function 381.
- k bytes of d1...dk are processed as symbol data.
- Specify only the data code word of the symbol with this function. Be sure not to include the control data in the data d1...dk because they are added automatically by the printer.
- Settings are effective until ESC @ is executed, the printer is reset or the power is turned off.

[Default]

[Reference] $1D $28 $6B

[Example]

$1D $28 $6B [function 381]

Devices: STIMA-CLS
STIMA-CMP

[Name] **Encodes and prints the DATAMATRIX symbol data in the symbol save area**

[Format]

ASCII	GS	(	k	pL	pH	cn	fn	m
Hex	1D	28	6B	pL	pH	cn	fn	m
Decimal	29	40	107	pL	pH	cn	fn	m

[Range] (pL+pH × 256) = 3 (pL = 3, pH = 0)
cn = 51
fn = 81
m = 51

[Description] Encodes and prints the DATAMATRIX symbol data in the symbol save area.

[Notes]
- In standard mode, use this function when printer is "at the beginning of a line" or "there is no data in the print buffer".
- A symbol that size exceeds the printing area cannot be printed.
- If there is any error described below in the data of the symbol save area, it cannot be printer.
  - There is no data (Function 380 is not processed).
  - If [(number of columns × number of rows) < number of code word] when auto processing is specified for number of columns and number of rows.
  - Number of code word exceeds 928 in the data area.

[Default]

[Reference] $1D $28 $6B

[Example] To print the DATAMATRIX symbol data the command sequence is : $1D $28 $6B $03 $00 $33 $51 $33

$1D $2A

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Define dowloaded bit image**

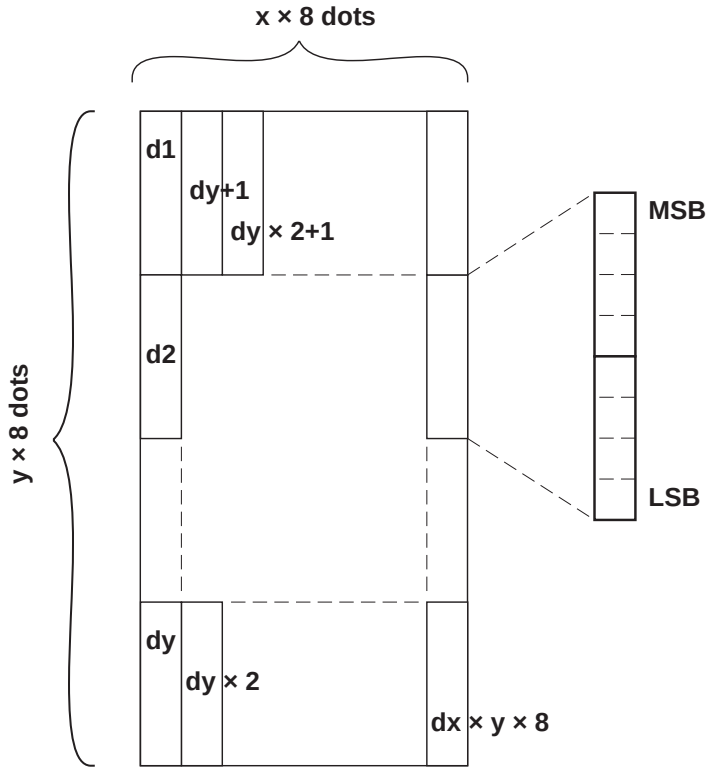
[Format]

ASCII	GS	*	x	y	d1...d(x × y × 8)
Hex	1D	2A	x	y	d1...d(x × y × 8)
Decimal	29	42	x	y	d1...d(x × y × 8)

[Range]
1 ≤ x ≤ 255
1 ≤ y ≤ 48
x × y ≤ 1536
0 ≤ d ≤ 255

[Description]
Defines a downloaded bit image using the number of dots specified by x and y.
• x specifies the number of dots in the horizontal direction.
• y specifies the number of dots in the vertical direction.

[Notes]
• The number of dots in the horizontal direction is x × 8, in the vertical direction it is y × 8.
• If x × y is out of the specified range, this command is disabled.
• The d indicates bit-image data. Data (d) specifies a bit printed to 1 and not printed to 0.
• The downloaded bit image definition is cleared when:
1) $1B $40 is executed.
2) $1B $26 is executed.
Printer is reset or the power is turned off.
• The following figure shows the relationship between the downloaded bit image and the printed data.



[Reference] $1D $5C
[Example]

$1D $2F

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print downloaded bit image**

[Format]

ASCII	GS	/	m
Hex	1D	2F	m
Decimal	29	47	m

[Range]

[Description] Prints a downloaded bit image using the mode specified by m. *m* selects a mode from the table below :

m	MODE
0,48	Normal
1, 49	Double width
2, 50	Double height
3, 51	Quadruple

[Notes]
• This command is ignored if a downloaded bit image has not been defined.
• In standard mode, this command is effective only when there is no data in the print buffer.
• This command has no effect in the print modes (emphasized, underline, character size, or white/black reverse printing), except for upside-down printing mode.
• If the downloaded bit-image to be printed exceeds the printable area, the excess data is not printed
• If the printing area width set by $1D $4C and $1D $57 is less than one line in vertical, the following processing is performed only on the line in question:
1) The printing area width is extended to the right up to one line in vertical. In this case, printing does not exceed the printable area.
2) If the printing area width cannot be extended by one line in vertical, the left margin is reduced to accommodate one line in vertical.

[Reference] $1D $2A

[Example]

$1D $3A

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Start/end macro definition**

[Format]

ASCII	GS	:
Hex	1D	3A
Decimal	29	58

[Description] Starts or ends macro definition.

[Notes]
- Macro definition starts when this command is received during normal operation.
- When $1D $5E is received during macro definition, the printer ends macro definition and clears all definitions.
- Macros are not defined when power is turned on to the machine.
- Macro content is not cancelled by the $1B $40 command. Therefore, $1B $40 may be included in the content of macro definitions.
- If the printer receives $1D $3A a second time after previously receiving $1D $3A, the printer remains in macro undefined status.
- The contents of the macro can be defined up to 1024 bytes. If the macro definition exceeds 1024 bytes, excess data is not stored.

[Default]

[Reference] $1D $5E

[Example]

$1D $42

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Turn white/black reverse printing mode on/off**

[Format]

ASCII	GS	B	n
Hex	1D	42	n
Decimal	29	66	n

[Range] 0 ≤ n ≤ 255

[Description] Turns white/black reverse printing mode on or off.
- When the LSB of *n* is 0, white/black reverse printing is turned off.
- When the LSB of *n* is 1, white/black reverse printing is turned on.

[Notes]
- Only the LSB di *n* is effective.
- This command is available for both built-in and user-defined characters.
- This command does not affect bit image, downloaded bit image, bar code, HRI characters and spacing skipped by $09, $1B $24 and $1B $5C.
- This command does not affect white space between lines.
- White/black reverse mode has a higher priority than underline mode. Even if underline mode is on, it will be disabled (but not cancelled) when white/black reverse mode is selected.

[Default] n = 0

[Reference]

[Example]

$1D $48

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Select printing position of Human Readable Interpretation (HRI) characters**

[Format]

ASCII	GS	H	n
Hex	1D	48	n
Decimal	29	72	n

[Range] 0 ≤ n ≤ 3, 48 ≤ n ≤ 51

[Description] Selects the printing position of HRI characters when printing bar codes. *n* selects the printing positions as follows:

n	FUNCTION
0, 48	Not printed
1, 49	Above the barcode.
2, 50	Below the barcode.
3, 51	Both above and below the barcode.

[Notes] HRI characters are printed using the font specified by $1D $66.

[Default] n = 0

[Reference] $1D $66, $1D $6B

[Example]

$1D $49

Devices: STIMA-CLS
STIMA-CMP

[Name] **Transmit printer ID**

[Format]

ASCII	GS	I	n
Hex	1D	49	n
Decimal	29	73	n

[Range] 1 ≤ n ≤ 3, 49 ≤ n ≤ 51

[Description] Transmits the printer ID specified by n follows:

n	PRINTER ID	SPECIFICATION
1, 49	Printer model ID	$BA (STIMA-CLS) $BA (STIMA-CMP)
2, 50	Type ID	See table below
3, 51	ROM version ID	Depends on ROM version (4 characters)

n = 2, 50 Type ID

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	2-byte characters codes not supported
1	Off	00	0	Autocutter not supplied
	On	02	2	Autocutter supplied
2	Off	00	0	Thermal paper w/o label
	On	04	4	Thermal paper label
3	-	-	-	Undefined
4	Off	00	0	Not used. Fixed to Off
5	-	-	-	Undefined
6	-	-	-	Undefined
7	Off	00	0	Not used. Fixed to Off

[Notes]
- This command is executed when the data is processed in the data buffer. Therefore, there could be a time lag between command reception and data transmission, depending on data buffer status.
- The printer only transmits 1 byte (printer ID) without confirmation that the host is ready to receive data.

[Default]
[Reference]
[Example]

$1D $4C

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set left margin**

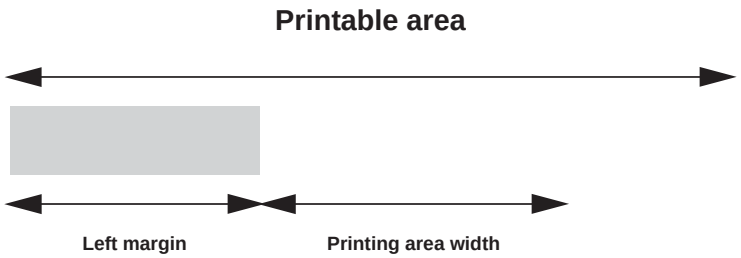
[Format]

ASCII	GS	L	nL	nH
Hex	1D	4C	nL	nH
Decimal	29	76	nL	nH

[Range] 0 ≤ nL, nH ≤ 255

[Description] Sets the left margin.

• The left margin is set to [(nL + nH × 256) × (horizontal motion unit)] inches.



[Notes]

• This command is enabled only if set at the beginning of the line.
• If the setting exceeds the printable area, the maximum value of the printable area is used.
• If the left margin + printing area width is greater than the printable area, the printing area width is set at maximum value.
• The horizontal and vertical motion unit are specified by $1D $50. Changing the horizontal or vertical motion unit does not affect the current left margin.
• The $1D $50 command can change the horizontal (and vertical) motion unit.
• However, the value cannot be less than the minimum horizontal movement amount and it must be in even units of the minimum horizontal movement amount.

[Default]

[Reference] $1D $50, $1D $57

[Example]

$1D $50

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set horizontal and vertical motion units**

[Format]

ASCII	GS	P	x	y
Hex	1D	50	x	y
Decimal	29	80	x	y

[Range] 0 ≤ x, y ≤ 255

[Description] Sets the horizontal and vertical motion units to 1/x inch and 1/y inch respectively.
When x is set to 0, the default setting value is used.
When y is set to 0, the default setting value is used.

[Notes]
• The horizontal direction is perpendicular to the paper feed direction.
• In standard mode, the following commands use x or y, regardless of character rotation (upside-down or 90° clockwise rotation):
❶ Commands using x : $1B $20, $1B $24, $1B $5C, $1D $4C, $1D $57.
❷ Commands using y : $1B $33, $1B $4A.
• This command does not affect the previously specified values.
• The calculated result from combining this command with others is truncated to the minimum value of the mechanical pitch or an exact multiple of that value.

[Default] x = 204, y = 408

[Reference] $1B $20, $1B $24, $1B $5C, $1B $33, $1B $4A, $1D $4C, $1D $57

[Example]

❶ $1D $56, ❷ $1D $56

Devices: STIMA-CLS
STIMA-CMP

[Name] **Select cut mode**

[Format]

❶	ASCII	GS	V	m		
	Hex	1D	56	m		
	Decimal	29	86	m		
❷	ASCII	GS	V	m	n	
	Hex	1D	56	m	n	
	Decimal	29	86	m	n	

[Range]
❶ m = 0, 48
❷ m = 65, 0 ≤ n ≤ 255

[Description] Selects cut mode and executes the cut command. *m* selects cut mode as follows:

m	FUNCTION
0, 48	Total cut.
65, 66	Form feed (cut position + [n × vertical motion unit]) and total cut

STIMA-CMP

m	FUNCTION
65, 66	Form feed (cut position + [n × vertical motion unit]) and total cut

[Notes]
• This command is only enabled if set at the beginning of the line.
• The horizontal and vertical motion units are specified by $1D $50.

[Default]

[Reference] $1B $69

[Example]

$1D $57

Devices:	STIMA-CLS
	STIMA-CMP

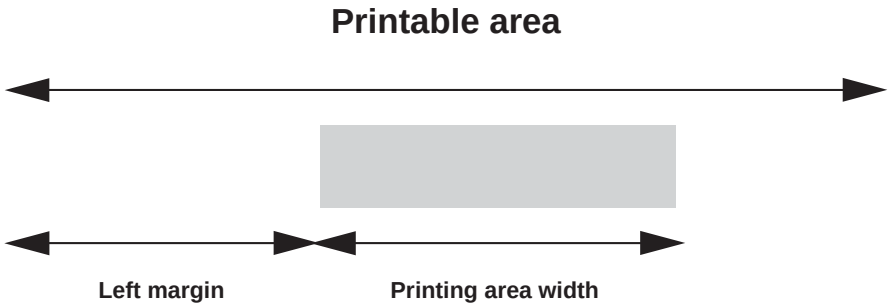
[Name] **Set printing area width**

[Format]

ASCII	GS	W	nL	nH
Hex	1D	57	nL	nH
Decimal	29	87	nL	nH

[Range] 0 ≤ nL, nH ≤ 255
0 ≤ nL + nH × 256) ≤ 832

[Description] Sets the printing area width to the area specified by *nL* and *nH*.
• The left margin is set to [(nL + nH × 256) × (horizontal motion unit)] inches.



[Notes]
• This command is only enabled if set at the beginning of the line.
• If the right margin is greater than the printable area, the printing area width is set at maximum value.
• If the printing area width = 0, it is set at the maximum value.
• The horizontal and vertical motion units are specified by $1D $50. Changing the horizontal or vertical motion unit does not affect the current left margin.
• The $1D $50 command can change the horizontal (and vertical) motion unit. However, the value cannot be less than the minimum horizontal movement amount and it must be in even units of the minimum horizontal movement amount.

[Default]

[Reference] $1D $4C, $1D $50

[Example]

$1D $5E

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Execute macro**

[Format]

ASCII	GS	^	r	t	m
Hex	1D	5E	r	t	m
Decimal	29	94	r	t	m

[Range] 0 ≤ r, t ≤ 255
0 ≤ m ≤ 1

[Description] Executes a macro.
• r specifies the number of times to execute the macro.
• t specifies the waiting time for executing the macro.
The waiting time is t × 100 msec. for each macro execution.
• m specifies macro executing mode:
When the LSB of m = 0, the macro is executed r times continuously at the interval specified by t.
When the LSB of m = 1, after waiting for the period specified by t, the LED indicator blinks and the printer waits for the FEED button to be pressed. After the button is pressed, the printer executes the macro once. The printer repeats the operation r times.

[Notes]
• This command has an interval of (t × 100 msec.) after a macro is executed by t.
• If this command is received while a macro is being defined, the macro definition is aborted and the definition is cleared.
• If the macro is not defined or if r is 0, nothing is executed.
• When the macro is executed by pressing the FEED button (m=1), the paper cannot be fed using the FEED button.

[Default]

[Reference] $1D $3A

[Example]

$1D $66

Devices: STIMA-CLS
STIMA-CMP

[Name] **Select font for HRI characters**

[Format]

ASCII	GS	f	n
Hex	1D	66	n
Decimal	29	102	n

[Range] n = 0, 1, 48, 49

[Description] Selects a font for the HRI characters used when printing a bar code. *n* selects a font from the following table:

n	FONT
0, 48	Font A
1, 49	Font B

[Notes] HRI characters are printed at the position specified by $1D $48.

[Default] n = 0

[Reference] $1D $48, $1D $6B

[Example]

$1D $68

Devices: STIMA-CLS
STIMA-CMP

[Name] **Set bar code height**

[Format]

ASCII	GS	h	n
Hex	1D	68	n
Decimal	29	104	n

[Range] 1 ≤ n ≤ 255

[Description] Sets the height of the bar code. n specifies the number of vertical dots.

[Notes]

[Default] n = 162 (20.25 mm)

[Reference] $1D $6B

[Example]

❶ $1D $6B, ❷ $1D $6B

Devices: STIMA-CLS

STIMA-CMP

[Name] **Print bar code**

[Format]

❶	ASCII	GS	k	m	NUL
	Hex	1D	6B	m	00
	Decimal	29	107	m	0
❷	ASCII	GS	k	m	n
	Hex	1D	6B	m	n
	Decimal	29	107	m	n

[Range]

❶ 0 ≤ m ≤ 20

❷ 65 ≤ m ≤ 90

[Description] Selects a bar code system and prints the bar code. *m* selects a bar code system as follows:

	m	BARCODE SYSTEM	No. OF CHARACTERS	REMARKS
❶	0	UPC-A	11≤ k ≤12	48≤ d ≤ 57
	1	UPC-E	11≤ k ≤12	48≤ d ≤ 57
	2	EAN13 (JAN)	12≤ k ≤13	48≤ d ≤ 57
	3	EAN8 (JAN)	7≤ k ≤8	48≤ d ≤ 57
	4	CODE39	1≤ k	48 ≤ d ≤ 57,65 ≤ d ≤ 90, 32, 36, 37, 43, 45, 46, 47
	5	ITF	1≤ k (even number)	48 ≤ d ≤ 57
	6	CODABAR	1≤ k	48 ≤ d ≤ 57, 65 ≤ d1 ≤ 68, 36, 43, 45, 46, 47, 58
	7	CODE93	1≤ k ≤255	1≤ d ≤ 127
	8	CODE128	2≤ k ≤255	1≤ d ≤ 127
	20	CODE32	8≤ k ≤9	48≤ d ≤ 57

❷	65	UPC-A	11≤ n ≤12	48≤ d ≤ 57
	66	UPC-E	11≤ n ≤12	48≤ d ≤ 57
	67	EAN13 (JAN)	12≤ n ≤13	48≤ d ≤ 57
	68	EAN8 (JAN)	7≤ n ≤8	48≤ d ≤ 57
	69	CODE39	1≤ n ≤ 255	48 ≤ d ≤ 57, 65 ≤ d ≤ 90, 32, 36, 37, 43, 45, 46, 47
	70	ITF	1≤ n ≤255	48≤ d ≤ 57
	71	CODABAR	1≤ n ≤ 255	48 ≤ d ≤ 57, 65 ≤ d1 ≤ 68, 36, 43, 45, 46, 47, 58
	72	CODE93	1≤ n ≤255	0≤ d ≤ 127
	73	CODE128	2≤ n ≤255	0≤ d ≤ 127
	90	CODE32	8≤ n ≤9	48≤ d ≤ 57

[Notes]

• If d is outside of the specified range, the printer prints the following message: “BAR CODE GENERATOR IS NOT OK!” and processes the data which follows as normal data.
• If the horizontal size exceeds the printing area, the printer only feeds the paper.
• This command feeds as much paper as is required to print the bar code, regardless of the line spacing specified by $1B $32 or $1B $33.
• After printing the bar code, this command sets the print position to the beginning of the line.

• This command is not affected by print modes (emphasized, double-strike, underline or character size), except for upside-down and justification mode.

[Notes per ❶]

• This command ends with a NUL code.
• When the bar code system used is UPC-A or UPC-E, the printer prints the bar code data after receiving 11 (without check digit) or 12 (with check digit) bytes bar code data.
• When the bar code system used is EAN13, the printer prints the bar code data after receiving 12 (without check digit) or 13 (with check digit) bytes bar code data.
• When the bar code system used is EAN8, the printer prints the bar code data after receiving 7 (without check digit) or 8 (with check digit) bytes bar code data.
• The number of data for ITF bar code must be even numbers. When an odd number of data is input, the printer ignores the last received data.

[Notes per ❷]

• If *n* is outside of the specified range, the printer stops command processing and processes the following data as normal data.

When CODE93 is used:
• The printer prints an HRI character (o) as a start character at the beginning of the HRI character string.
• The printer prints an HRI character (o) as a stop character at the end of the HRI character string.
• The printer prints an HRI character (n) as a control character ($00 to $1F and $7F).
When CODE128 is used:
• When using CODE128 in this printer, please note the following regarding data transmission:
• The top part of the bar code data string must be a code set selection character (CODE A, CODE B or CODE C) which selects the first code set.
• Special characters are defined by combining two characters "{" and one character. ASCII character "{" is defined by transmitting "{" twice, consecutively.

SPECIFIC CHARACTER	DATA TRANSMISSION		
	ASCII	HEX	Decimal
SHIFT	{S	7B, 53	123, 83
CODE A	{A	7B, 41	123, 65
CODE B	{B	7B, 42	123, 66
CODE C	{C	7B, 43	123, 67
FNC1	{1	7B, 31	123, 49
FNC2	{2	7B, 32	123, 50
FNC3	{3	7B, 33	123, 51
FNC4	{4	7B, 34	123, 52
'{'	{{	7B, 7B	123, 123

When UPC-E is used, introducing the barcode characters, the printer prints:

TRANSMITTED DATA											PRINTING DATA					
d1	d2	d3	d4	d5	d6	d7	d8	d9	d10	d11						
0	0-9	0-9	0	0	0	0	0	0-9	0-9	0-9	d2	d3	d9	d10	d11	0
0	0-9	0-9	1	0	0	0	0	0-9	0-9	0-9	d2	d3	d9	d10	d11	1
0	0-9	0-9	2	0	0	0	0	0-9	0-9	0-9	d2	d3	d9	d10	d11	2
0	0-9	0-9	3-9	0	0	0	0	0	0-9	0-9	d2	d3	d4	d10	d11	3
0	0-9	0-9	0-9	1-9	0	0	0	0	0	0-9	d2	d3	d4	d5	d11	4
0	0-9	0-9	0-9	0-9	1-9	0	0	0	0	5-9	d2	d3	d4	d5	d6	d11

[Default]

[Reference] $1D $48, $1D $66, $1D $68, $1D $77

[Example]

❶ Example of print the Bar Code 39
1D 6B 04 54 45 53 54 00

❷ Example of print the Bar Code 39
1D 6B 45 04 54 45 53 54

$1D $72

Devices: STIMA-CLS

STIMA-CMP

[Name] **Transmit status**

[Format]

ASCII	GS	r	n
Hex	1D	72	n
Decimal	29	114	n

[Range] n = 1, 49

[Description] Transmits the status specified by n as follows:

n	FUNCTION
1, 49	Transmits paper sensor status (as for $1B $76).

Paper sensor status (n = 1, 49):

BIT	OFF/ON	HEX	Decimal	FUNCTION
0, 1	Off	00	0	Near paper end sensor: paper present
	On	03	3	Near paper end sensor: paper not present
2,3	Off	00	0	Paper end sensor: paper present
	On	(0C)	(12)	Paper end sensor: paper not present
4	Off	00	0	Not used. Fixed to Off
5	-	-	-	Undefined
6	-	-	-	Undefined
7	Off	00	0	Not used. Fixed to Off

[Notes] • This command is executed when the data is processed in the data buffer. Therefore, there may be a time lag between receiving the command and transmitting the status, depending on data buffer status.

[Default]

[Reference] $10 $04, $1B $76

[Example]

$1D $76 $30

Devices: STIMA-CLS
STIMA-CMP

[Name] **Print raster bit image**

[Format]

ASCII	GS	v	0	m	xL xH yL yH d1...dk
Hex	1D	76	30	m	xL xH yL yH d1...dk
Decimal	29	118	48	m	xL xH yL yH d1...dk

[Range]
0 ≤ m ≤ 3, 48 ≤ m ≤ 51
0 ≤ xL ≤ 255
0 ≤ xH ≤ 255 (1 ≤ xL + xH x 256 ≤ 65535)
0 ≤ yL ≤ 255
0 ≤ yH ≤ 8 (1 ≤ yL + yH x 256 ≤ 2047)
0 ≤ d ≤ 255
k = (xL + xH × 256) + (yL + yH × 256)
(except for k = 0)

[Description] Selects raster bit image mode. The value of m selects the mode as follows:

m	MODE
0,48	Normal
1, 49	Double width
2, 50	Double height
3, 51	Quadruple

• xL, xH selects the number of data bits (xL+xH x 256) in the horizontal direction for the bit image.
• yL, yH selects the number of data bits (yL+yH x 256) in the vertical direction for the bit image.
k indicates no. of the image data. k is an explanation parameter; it is not necessary to be transmitted.
• d indicates the image data.

[Notes]
• In standard mode for receipt paper, this command is effective only when there is no data in the print buffer.
• The data (d) identify as 1 a printer bit and as 0 a non-printed bit.
• If a raster bit image is longer than one line, the surplus data aren't printed.
• This command has no effect in all print modes (character size, emphasized,double-strike, upside-down, underline, white/black reverse printing, etc.) for raster bit image.
• This command feed the paper as much as necessary to print the bit image without using spacing set by $1B $32 or $1B $33.
• Do not use this command during a macro executing because this command should not be included in a macro.
• After the printing the printing starting position moves to the beginning of the line.
• The following table shows the relationship between the downloaded bit image and the printed data:

d1	d2	...	dx
dX+1	dX+2	...	dX × 2
:	:	...	:
...	dk-2	dk-1	dk

[Reference]
[Example]

$1D $77

Devices: STIMA-CLS

STIMA-CMP

[Name] **Set bar code width**

[Format]

ASCII	GS	w	n
Hex	1D	77	n
Decimal	29	119	n

[Range] 1 ≤ n ≤ 6

[Description] Sets the horizontal size of the bar code. *n* specifies the bar code width as follows:

n	MODULE WIDTH (mm)
1	0.125
2	0.25
3	0.375
4	0.5
5	0.625
6	0.75

[Notes]

[Default] n = 3

[Reference] $1D $6B

[Example]

$1D $7C

Devices: STIMA-CLS

STIMA-CMP

[Name] **Set printing density**

[Format]

ASCII	GS	{ }	n
Hex	1D	7C	n
Decimal	29	124	n

[Range] 0 ≤ n ≤ 8, 48 ≤ n ≤ 56

[Description] Sets printing density. *n* specifies printing density as follows:

n	PRINTING DENSITY
0, 48	- 50%
1, 49	- 37.5%
2, 50	- 25%
3, 51	- 12.5%
4, 52	0%
5, 53	+ 12.5%
6, 54	+ 25%
7, 55	+ 37.5%
8,56	+ 50%

[Notes] • Printing density reverts to the default value when the printer is reset or turned off.

[Default] n = 4

[Reference]

[Example]

$1D $E0

Devices: STIMA-CLS
STIMA-CMP

[Name] **Enable / disable automatic FULL STATUS back**

[Format]

ASCII	GS	{ }	n
Hex	1D	E0	n
Decimal	29	224	n

[Range] 0 ≤ n ≤ 255

[Description] Enable / disable automatic full status back. n specifies the composition of FULL STATUS as follows :

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Disable paper status
	On	01	1	Enable paper status
1	Off	00	0	Disable user status
	On	02	2	Enable user status
2	Off	00	0	Disable Recoverable Error Status
	On	04	4	Enable Recoverable Error Status
3	Off	00	0	Disable Unrecoverable Error Status
	On	08	8	Enable Unrecoverable Error Status
4	-	-	-	RESERVED
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	-	-	-	RESERVED

[Notes] • Once enable at least one byte of the FULL STATUS, for each change of at least one of the bits which compose the required status, the status sent in automatic from the printer will be so composed as follows:
1° Byte = 0x10 (DLE)
2° Byte = n
Next bytes (depends how many bits are active in n)

[Default]

[Reference] $10 $04

[Example]

$1D $E1

Devices: STIMA-CLS
STIMA-CMP

[Name] **Reading of length paper (cm) available before virtual paper-end**

[Format]

ASCII	GS	{ }
Hex	1D	E1
Decimal	29	225

[Range]

[Description] Reading of length (cm) paper available before virtual paper-end.
The command return a string pointing out how much paper is available, for example if there are 5.1 m before the paper end, it will be: '510cm'

[Notes] • The lenght of residual paper reported is just as an indication because tolerances and other factors are not taken into consideration (paper thickness, roll core diameter, roll core thickness). The virtual paper-end limit is set by the command $1D $E6.
• To set virtual paper-end limit, measure the length of the paper from near paper end to the end of the roll, using several of them.

[Default]

[Reference] $1D $E6

[Example]

$1D $E2

Devices: STIMA-CLS

[Name] **Reading number of cuts performed from the printer**

[Format]

ASCII	GS	{ }
Hex	1D	E2
Decimal	29	226

[Range]

[Description] Reading the number of cuts performed from the printer.

[Notes] The command return a string that points out how many cuts are performed by the printer, for example if there are performed 2376 cuts, it will be: '2376 cuts'

[Default]

[Reference]

[Example]

$1D $E3

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Reading of length (cm) of printed paper**

[Format]

ASCII	GS	{ }
Hex	1D	E3
Decimal	29	227

[Range]

[Description] Reading of length (cm) of printed paper.

[Notes] The command return a string pointing out how much paper is printed, for example if the printer has print about 2515,5 m, it will be: ‘251550cm’

[Default]

[Reference]

[Example]

$1D $E5

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Reading number of power up**

[Format]

ASCII	GS	{ }
Hex	1D	E5
Decimal	29	229

[Range]

[Description] Reading number of power up of the printer.

[Notes] The command return a string pointing out the number of turning on of the printer, for example if the printer is turned on 512 times, it will be: ‘512on’

[Default]

[Reference]

[Example]

$1D $E6

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Virtual paper-end limit**

[Format]

ASCII	GS	{ }	nH	nL
Hex	1D	E6	nH	nL
Decimal	29	230	nH	nL

[Range] 0 ≤ nH≤ 255
0 ≤ nL ≤ 255

[Description] This command sets the limit after which is pointed out the virtual paper-end.

[Notes]
• The calculation limit of the near paper-end is in centimetres.
• This value is expressed as [(nH x 256)+nL]

[Default] nH = 0×00
nL = 0×F0

[Reference]

[Example] To see the virtual paper-end is pointed out after 15 metres from the first detection of near paper end, it's necessary convert 15 metres in 1500 centimetres and then, calculate nH and nL value in the following mode:

nH = 1500 / 256 = 5
nL = 1500 - (nH x 256) = 1500 - (5 x 256) = 220

and then send the following command:

HEX:	$1D	$E6	$05	$DC
DECIMAL:	29	230	5	220

$1D $E7

Devices: STIMA-CLS

STIMA-CMP

[Name] **Set notch distance**

[Format]

ASCII	GS	{ }	nL	nH
Hex	1D	E7	nL	nH
Decimal	29	231	nL	nH

[Range] 0 ≤ nH ≤ 255
0 ≤ nL ≤ 255

[Description] Sets notch distance in tenth mm from the beginning of the document.

[Notes]
- This value is expressed as [(nH x 256)+nL]
- The maximum value is 99,9 mm.

[Default] nH = $00
nL = $00

[Reference]

[Example]

$1D $F0

Devices: STIMA-CLS

STIMA-CMP

[Name] **Set printing speed**

[Format]

ASCII	GS	{ }	n
Hex	1D	F0	n
Decimal	29	240	n

[Range] 0 ≤ n ≤ 2

[Description] Sets printing speed. *n* specifies the printing speed as follows:

n	PRINTING SPEED
0	Alta qualità
1	Normale
2	Alta velocità

[Notes]
- Printing speed reverts to the default value when the printer is reset or turned off.

[Default] n = 1

[Reference]

[Example]

$1D $F6

Devices:	STIMA-CLS
	STIMA-CMP

Name]	**Align the print head with the notch**		
[Format]	ASCII	GS	{ }
	Hex	1D	F6
	Decimal	29	246
[Range]			
[Description]	Set the print head notch alignment (as $1D $E7 command setting).		
[Notes]			
[Default]			
[Reference]	$1D $E7, $1D $F8		
[Example]			

$1D $F8

Devices:	STIMA-CLS

[Name]	**Align the autocutter with the notch**		
[Format]	ASCII	GS	{ }
	Hex	1D	F8
	Decimal	29	248
[Range]			
[Description]	Set the autocutter notch alignment (as $1D $E7 command setting).		
[Notes]			
[Default]			
[Reference]	$1D $E7, $1D $F6		
[Example]			

3 SVELTA EMULATION

The following table lists all the commands for function management. The commands must be transmitted to the device as command string enclosed between '<' character and '>' character.

COMMAND DESCRIPTION TABLE

Com. ASCII	Description
PRINT COMMANDS	
<DATE>	Print data
<p>	Printing command (cut and buffer cleaning) in reverse
<P>	Printing command (cut and buffer cleaning) in normal
<PP n, x, y, sp>	Print image in graphic page
<PR n, x, y, sp>	Print rotated image
<q>	Printing command (only buffer cleaning) in reverse
<Q>	Printing command (only buffer cleaning) in normal
<TDF m Data>	Set user-defined date/time formats
<TIME>	Print time
CHARACTERS COMMAND	
<BS height, width>	Define area of the BOX mode
<F:bold>	Set bold mode
<F:clear>	Uninstall all TrueType fonts from printer
<F:draw:n>	Set drawing mode
<F:enc:ascii>	Set ASCII encoding
<F:enc:utf-8>	Set UTF-8 encoding
<F:enc:utf-16>	Set UTF-16 encoding
<F:err:n>	Get error
<F:*filename.ttf*>	Install new font
<F:italic>	Set italic mode
<F n>	Select the font
<F:regular>	Set regular mode
<F:rotate:aa>	Set font angle rotation
<F:size:nn>	Set font dimension
<HW height, width>	Set height and width of the current font
<NR>	Restore the text horizontal
<RL>	Rotate test 90° counter-clockwise
<RR>	Rotate test 90° clockwise
<RU>	Rotate test 180°
PRINT POSITION COMMANDS	
<LHTlength, width, notch, dimnotch>	Set the ticket dimension to print
<MM n>	Feed the paper of n step
<OXY x, y>	Set printing offset
<RC row, column>	Position the cursor

<T>	Get the ticket dimension to print
BIT-IMAGE COMMANDS	
<BF x1, y1, x2, y2>	Command to create filled BOX
<BV x1, y1, x2, y2>	Command to create empty BOX
<BX x1, y1, x2, y2, s, t>	Command to create parametric BOX
<CB>	Clear data in the print buffer
STATUS COMMAND	
<AFSB x>	Enable / Disable auto FULL STATUS back
<SB x>	FULL STATUS request
<S n>	Status request
BARCODE COMMANDS	
<B2D k, A, x>	Set the number of columns of two-dimensional barcode (PDF417)
<B2D k, B, x>	Set the number of rows of two-dimensional barcode (PDF417)
<B2D k, C, x>	Set the width of two-dimensional barcode (PDF417)
<B2D k, D, x>	Set the height of two-dimensional barcode (PDF417)
<B2D k, E, m, x>	Set the error correction level (PDF417)
<B2D k, P, x, d1...dn>	Store the two-dimensional barcode data in the symbol save area (PDF417)
<B2D l, A, x>	Set the height of DATAMATRIX symbol
<B2D l, B, x>	Set dot size (DATAMATRIX)
<B2D l, C, x>	Set symbol size (DATAMATRIX)
<B2D l, D, x>	Set rotation (DATAMATRIX)
<B2D l, P, x, d1...dn>	Store the two-dim. barcode data in the symbol save area (DATAMATRIX)
<B2D m, A, n>	Specify encoding scheme (AZTEC)
<B2D m, B, n>	Specify dot size (AZTEC)
<B2D m, C, n>	Specify symbol size (AZTEC)
<B2D m, D, n>	Specify error correction level (AZTEC)
<B2D m, P, x, d0...dk>	Store the received data in the symbol save area (AZTEC)
<B2D n, A, n>	Specify encoding scheme (QRcode)
<B2D n, B, n>	Specify dot size (QRcode)
<B2D n, C, n>	Specify symbol size (QRcode)
<B2D n, D, n>	Specify error correction level (QRcode)
<B2D n, P, x, d0...dk>	Store the received data in the symbol save area (QRcode)
<NCL x,y>	Print an horizontal code 128 barcode
<NCP x,y>	Print a vertical code 128 barcode
<NFL s>	Print horizontal ITF barcode
<NFP s>	Print a vertical ITF barcode
<NL s>	Print an horizontal code 39 barcode
<NP s>	Print a vertical code 39 barcode
<X n, M>	Define the barcode lines dimension
MISCELLANEOUS COMMANDS	
<bXnn>	Set the scan timeout of the barcode reader

<B>	Return the scan timeout value of the barcode reader
<BC n>	Read a barcode
<BEEP 1, tt>	Emits a beep
<BMP>	Save a bitmap into flash disk
<BMPD>	Save a bitmap into SD/MMC card
<COM1>	Terminate the communication toward RFID
<COM2>	Select the communication toward RFID
<DT m>	Read date/time through serial port
<EPOS>	Change printer emulation to ESC/ POS
<KEYS x>	Enable/Disable keys panel
<LOAD>	Reload paper
<SDT m Data>	Set date/time through serial port
<SVEL>	Change printer emulation to SVELTA
TICKET MANAGEMENT COMMANDS	
<BA n>	Change the ticket print intensity
<SP n>	Change speed
LOGOS MANAGEMENT COMMANDS	
<PC HexNumLogo HexXDim HexY-Dim HexTBD Id HexData>	Save the image in flash
<PE n>	Delete image
<PI n>	Get picture header info
<PL>	Get picture header list
<PN>	Get number of stored logo

Given below are more detailed descriptions of each command.

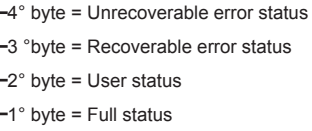
<AFSB x>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Enable / Disable auto FULL STATUS back**

[Format] ASCII <AFSB x >

[Range] '0' ≤ x ≤ '9', 'A' ≤ x ≤ 'F'

[Description]
• Enable/disable auto FULL STATUS back.
• x specify the request for FULL STATUS. where x identify the bitmask with the following table:



x		*BIT3*	*BIT2*	*BIT1*	*BIT0*
0	»	0	0	0	0
1	»	0	0	0	1
2	»	0	0	1	0
3	»	0	0	1	1
4	»	0	1	0	0
5	»	0	1	0	1
6	»	0	1	1	0
7	»	0	1	1	1
8	»	1	0	0	0
9	»	1	0	0	1
A	»	1	0	1	0
B	»	1	0	1	1
C	»	1	1	0	0
D	»	1	1	0	1
E	»	1	1	1	0
F	»	1	1	1	1

[Notes]
• Once enable at least one byte of the FULL STATUS, for each change of at least one of the bits which compose the required status, the status sent in automatic from the printer will be so composed as follows:
<SB x, *CHR1 ..... CHRn*>

where:

SB	=	fixed characters
x	=	is the bitmask to identify the request.
CHR1..CHRn	=	response bytes referred to the following tables:

1° byte = Full status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Paper present
	On	01	1	Paper not present
1	-	-	-	RESERVED
2	Off	00	0	Paper present
	On	04	4	Near paper end
3	-	-	-	RESERVED
4	-	-	-	RESERVED
5	Off	00	0	Ticket not present in output
	On	20	32	Ticket present in output
6	Off	00	0	Not virtual paper end
	On	40	64	Virtual paper end
7	Off	00	0	Notch found
	On	80	128	Notch not found

2° byte = User status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Printing head down
	On	01	1	Printing head up error
1	Off	00	0	Cover closed
	On	02	2	Cover opened
2	Off	00	0	No spooling
	On	04	4	Spooling
3	Off	00	0	Drag paper motor off
	On	08	8	Drag paper motor on
4	-	-	-	RESERVED
5	Off	00	0	LF key released
	On	20	32	LF key pressed
6	Off	00	0	FF key released
	On	40	64	FF key pressed
7	-	-	-	RESERVED

3° byte = Recoverable error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Head temperature ok.
	On	01	1	Head temperature error
1	Off	00	0	No COM error
	On	02	2	RS232 COM error
2	-	-	-	RESERVED
3	Off	00	0	Power supply voltage ok
	On	08	8	Power supply voltage error
4	-	-	-	RESERVED
5	Off	00	0	Acknowledge command
	On	20	32	Not acknowledge command error
6	Off	00	0	Free paper path
	On	40	64	Paper jam
7	Off	00	0	Notch search ok
	On	80	128	Error in notch search

STIMA-CLS

4° byte = Unrecoverable error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Cutter ok
	On	01	1	Cutter error
1	Off	00	0	Cutter cover ok
	On	02	2	Cutter cover open
2	Off	00	0	RAM ok
	On	04	4	RAM error
3	Off	00	0	EEPROM ok
	On	08	8	EEPROM error
4	-	-	-	RESERVED
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	-	-	-	RESERVED

STIMA-CMP

4° byte = Unrecoverable error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	-	-	-	RESERVED
1	Off	00	0	Frontal cover ok
	On	02	2	Frontal cover open
2	Off	00	0	RAM ok
	On	04	4	RAM error
3	Off	00	0	EEPROM ok
	On	08	8	EEPROM error
4	-	-	-	RESERVED
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	-	-	-	RESERVED

[Default]

[Reference]

[Example] To request the Full status (1° byte) and the User status (2°byte) proceed as follow:
see bitmask:
*BIT*3 = 0 *BIT*2 = 0 *BIT*1 = 1 *BIT*0 =1 quindi 0011 = 3

Send the command: <AFSB3>
Possible answer: <SB3,0504>
where:
1°byte

0 = 0000	bit7 = 0 (notch found)	bit6 = 0 (not virtual paper end)	bit5 = 0 (ticket not present)	bit4 =0 (RESERVED)
5 = 0101	bit3 = 0 (RESERVED)	bit2 = 1 (near paper end)	bit1 = 0 (RESERVED)	bit0 =1 (Paper not present)

2°byte

0 = 0000	bit7 = 0 (RESERVED)	bit6 = 0 (FF key released)	bit5 = 0 (LF key released)	bit4 =0 (RESERVED)
4 = 0100	bit3 = 0 (drag motor off)	bit2 = 1 (spooling)	bit1 = 0 (cover closed)	bit0 =0 (print head down)

<bXnn>

Devices: STIMA-CLS *(only for models with BARCODE reader)*,

[Name] **Sets the scan timeout of the barcode reader**
[Format] ASCII <bXnn>
[Range]
[Description] Sets the scan timeout of the barcode reader, using nn parameter value, expressed in tenth of second (10-1 second).
If the X parameter value is equal to ASCII character 'e' ($65) the nn value (the scan timeout) is stored in EEProm. Otherwise its value is loaded into RAM so that it's possible to make different tests before save the correct value in EEProm.

[Notes]
[Default] X = 3
[Reference]
[Example]

<B>

Devices: STIMA-CLS *(only for models with BARCODE reader)*,

[Name] **Return the scan timeout value of the barcode reader**
[Format] ASCII <B>
[Range]
[Description] Returns the scan timeout value of the barcode reader.
[Notes]
[Default]
[Reference]
[Example]

<B2D k, A, x>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set the number of columns of two-dimensional barcode (PDF417)**
[Format] ASCII <B2D k, A, x>
[Range] 0 ≤ x ≤ 30
[Description] Set the number of columns of PDF417 barcode.
- *x* = 0 specifies auto processing
- When x is not 0, specifies the number of columns of the data area as x code word.

[Notes]
- When auto processing (x = 0) is specified, the maximum number of columns in the data area is 30 columns.

[Default] x = 0
[Reference]
[Example]

<B2D k, B, x>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set the number of rows of two-dimensional barcode**
[Format] ASCII <B2D k, B, x>
[Range] 3 ≤ x ≤ 90
[Description] Set the number of rows of PDF417 symbol.
- x specifies the number of rows of the data area as x rows.

[Notes]
[Default]
[Reference]
[Example]

<B2D k, C, x>

Devices:	STIMA-CLS
	STIMA-CMP

[Name]	**Set the width of a module of two-dimensional barcode (PDF417)**
[Format]	ASCII <B2D k, C, x>
[Range]	2 ≤ x ≤ 8
[Description]	Set the width of a module of PDF417 symbol.
[Notes]	
[Default]	x = 3
[Reference]	
[Example]	

<B2D k, D, x>

Devices:	STIMA-CLS
	STIMA-CMP

[Name]	**Set the height of two-dimensional barcode (PDF417)**
[Format]	ASCII <B2D k, D, x>
[Range]	2 ≤ x ≤ 8
[Description]	Set the height of PDF417 symbol.
[Notes]	
[Default]	x = 3
[Reference]	
[Example]	

<B2D k, E, m, x>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Set the error correction level (PDF417)**
[Format] ASCII <B2D k, E, m, x>
[Range] m = 0, 1
m = 0 0 ≤ x ≤ 8
m = 1 1 ≤ x ≤ 40
[Description] Set the error correction level of PDF417.
• The error correction level is specified by "level" when m = 0.
• The error correction level is specified by "ratio" when m = 1 [x × 10%].
[Notes] • Error correction level is specified by either "level" or "ratio".
• Error correction level specified by "level" (m = 0) is as follows. The number of the error correction code word is fixed regardless of the number of code words on the data area.

x	FUNCTION	N. OF ERROR CORRECTION CODE WORD
0	Error correction level 0	2
1	Error correction level 1	4
2	Error correction level 2	8
3	Error correction level 3	16
4	Error correction level 4	32
5	Error correction level 5	64
6	Error correction level 6	128
7	Error correction level 7	256
8	Error correction level 8	512

• Error correction level specified by "ratio" (m = 1) is as follows. The error correction level is defined by the calculated value [number of data code word × x × 0.1 = (A)]. The number of the error correction code word is changeable in proportion to the number of the code words on the data area.

CALCULATED VALUE (A)	CORRECTION LEVEL	N. OF ERROR CORRECTION CODE WORD
0 - 3	Error correction level 1	4
4 - 10	Error correction level 2	8
11 - 20	Error correction level 3	16
21 - 45	Error correction level 4	32
46 - 100	Error correction level 5	64
101 - 200	Error correction level 6	128
201 - 400	Error correction level 7	256
400 or more	Error correction level 8	512

• The error correction code word calculated by modulus 929.
[Default] m = 1, x = 1 [ratio: 10%]
[Reference]
[Example]

<B2D k, P, x, d1...dn>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Store the two-dimensional barcode data in the symbol save area (PDF417)**
[Format] ASCII <B2D k, P, x, d1...dn>
[Range]
[Description] Store the PDF417 symbol data (d1...dn) in the symbol save area.
- x = number of characters (= dn)
- d1...dn = barcode data

[Notes]
- n bytes of d1...dn are processed as symbol data.
- Specify only the data code word of the symbol with this function. Be sure not to include the control data in the data d1...dn because they are added automatically by the printer.

[Default]
[Reference]
[Example]

<B2D l, A, x>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify the encoding scheme of DATAMATRIX symbol**
[Format] ASCII <B2D l, A, x>
[Range] 0 ≤ x ≤ 6
[Description] Set the encoding scheme specified by x as follows:

x	ENCODING SCHEME
0	Ascii
1	C40
2	Text
3	X12
4	Edifact
5	Base256
6	AutoBest

[Notes]
[Default]
[Reference]
[Example]

<B2D I, B, x>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Set dot size (DATAMATRIX)**
[Format] ASCII <B2D I, B, x>
[Range] 2 ≤ x ≤ 24
[Description] Set dot size.
x = dot dimension.
[Notes]
[Default] x = 6
[Reference]
[Example]

<B2D I, C, x>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Set symbol size (DATAMATRIX)**
[Format] ASCII <B2D I, C, x>
[Range] 1 ≤ x ≤ 29
[Description] Set the symbol size specified by x as follows:

x	SYMBOL SIZE
1	10 x 10
2	12 x 12
3	14 x 14
4	16 x 16
5	18 x 18
6	20 x 20
7	22 x 22
8	24 x 24
8	26 x 26
10	32 x 32
11	36 x 36
12	40 x 40
13	44 x 44
14	48 x 48
15	52 x 52

x	SYMBOL SIZE
16	64 x 64
17	72 x 72
18	80 x 80
19	88 x 88
20	96 x 96
21	104 x 104
22	120 x 120
23	132 x 132
24	144 x 144
25	8 x 18
26	8 x 32
27	12 x 26
28	12 x 36
29	16 x 36

[Notes]
[Default] DmtxSymbolSquareAuto
[Reference]
[Example]

<B2D l, D, x>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Set rotation (DATAMATRIX)**
[Format] ASCII <B2D l, D, x>
[Range] x = 0, 1
[Description] Set rotation by x as follows:

n	ROTATION
0	No rotation
1	Rotation

[Notes]
[Default]
[Reference]
[Example]

<B2D l, P, x, d1...dn>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Store the two-dimensional barcode data in the symbol save area (DATAMATRIX)**
[Format] ASCII <B2D l, P, x, d1...dn>
[Range]
[Description] Store the DATAMATRIX symbol data (d1...dn) in the symbol save area.
- x = number of characters (= dn)
- d1...dn = barcode data

[Notes]
- n bytes of d1...dn are processed as symbol data.
- Specify only the data code word of the symbol with this function. Be sure not to include the control data in the data d1...dn because they are added automatically by the printer.

[Default]
[Reference]
[Example]

<B2D m, A, n>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify encoding scheme of AZTEC symbol**
[Format] ASCII <B2D m, A, n>
[Range] 0 ≤ n ≤ 1
[Description] Specifies encoding type of AZTEC barcode.

n	ENCODING SCHEME
0	FULL AZTEC
1	AZTEC RUNE

[Notes]
- Full Aztec: Encode all extended ASCII characters data up to a maximum lenght of approximately 3823 numeric or 3067 alphabetic characters or 1914 bytes of data.
- Aztec Rune (Compact Aztec Code, sometimes called Small Aztec Code): Encode all numbers from 0 to 9 up to a maximum lenght of 3 numbers.

[Default] n = 0
[Reference]
[Example]

<B2D m, B, n>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify dot size of AZTEC symbol**
[Format] ASCII <B2D, m, B, n>
[Range] 2 ≤ n ≤ 24
[Description] Specifies numbers of dot for each pixel of AZTEC symbol.
[Notes]
[Default] n = 0
[Reference]
[Example]

<B2D m, C, n>

Devices: STIMA-CLS

STIMA-CMP

[Name] **Specify AZTEC symbol size**

[Format] ASCII <B2D m, C, n>

[Range] 0 ≤ n ≤ 36

[Description] Specifies AZTEC barcode format (rows and columns), as follows:

n	FORMAT
0	AUTO
1	C15X15 Compact
2	C19X19 Compact
3	C23X23 Compact
4	C27X27 Compact
5	C19X19
6	C23X23
7	C27X27
8	C31X31
9	C37X37
10	C41X41
11	C45X45
12	C49X49

n	FORMAT
13	C53X53
14	C57X57
15	C61X61
16	C67X67
17	C71X71
18	C75X75
19	C79X79
20	C83X83
21	C87X87
22	C91X91
23	C95X95
24	C101X101
25	C105X105

n	FORMAT
26	C109X109
27	C113X113
28	C117X117
29	C121X121
30	C125X125
31	C131X131
32	C135X135
33	C139X139
34	C143X143
35	C147X147
36	C151X151

[Notes]

[Default] n = 0

[Reference]

[Example]

<B2D m, D, n>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify the error correction level (AZTEC)**
[Format] ASCII <B2D m, D, n>
[Range] 0 ≤ n ≤ 4
[Description] Specifies the ECC level (Error Correction Capacity) of AZTEC symbol.

n	ECC level
0	AUTO
1	> 10 % + 3 codewords
2	> 23 % + 3 codewords
3	> 36 % + 3 codewords
4	> 50 % + 3 codewords

[Notes]
• It is not possible to select both symbol size and error correction capacity for the same symbol. If both options are selected then the error correction capacity selection will be ignored.

[Default] n = 0
[Reference]
[Example]

<B2D m, P, n, d0...dk>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Store and prints the AZTEC symbol data in the symbol save area**
[Format] ASCII <B2D m, P, n, d0...dk> <P>
[Range] n = n bytes of data
[Description] Store the PDF417 symbol data (d1...dk) in the symbol save area.
• k bytes of d1...dk are processed as symbol data.
• Specify only the data code word of the symbol with this function.
[Notes]
[Default]
[Reference]
[Example]

<B2D n, A, n>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Specify encoding scheme of QRcode symbol**
[Format] ASCII <B2D n, A, n>
[Range] 0 ≤ n ≤ 1
[Description] Specifies encoding type of AZTEC barcode.

n	ENCODING SCHEME
0	QRcode
1	MicroQR

[Notes]
- QRcode: Encode all extended ASCII characters data up to a maximum length of 7089 numeric digits, 4296 alphabetic characters or 2953 bytes of data.
- MicroQR (a miniature version of the QRcode symbol for short message): Encode all numbers from 0 to 9 up to a maximum length of 35 characters.

[Default] n = 0
[Reference]
[Example]

<B2D n, B, n>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Specify dot size of QRcode symbol**
[Format] ASCII <B2D, n, B, n>
[Range] 2 ≤ n ≤ 24
[Description] Specifies numbers of dot for each pixel of QRcode symbol.
[Notes]
[Default] n = 0
[Reference]
[Example]

<B2D n, C, n>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify QRcode symbol size**
[Format] ASCII <B2D n, C, n>
[Range] 0 ≤ n ≤ 40
[Description] Specifies QRcode barcode format (rows and columns), as follows:

n	VERSION	n	VERSION	n	VERSION
0	AUTO	14	V14	28	V28
1	V1	15	V15	29	V29
2	V2	16	V16	30	V30
3	V3	17	V17	31	V31
4	V4	18	V18	32	V32
5	V5	19	V19	33	V33
6	V6	20	V20	34	V34
7	V7	21	V21	35	V35
8	V8	22	V22	36	V36
9	V9	23	V23	37	V37
10	V10	24	V24	38	V38
11	V11	25	V25	39	V39
12	V12	26	V26	40	V40
13	V13	27	V27		

[Notes]
[Default] n = 0
[Reference]
[Example]

<B2D n, D, n>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Specify the error correction level (QRcode)**
[Format] ASCII <B2D n, D, n>
[Range] 0 ≤ n ≤ 4
[Description] Specifies the ECC level (Error Correction Capacity) of QRcode symbol.

n	ECC level	
0	AUTO	
1	ECC = approx 20% of symbol	Recovery Capacity = approx 7%
2	ECC = approx 37% of symbol	Recovery Capacity = approx 15%
3	ECC = approx 50% of symbol	Recovery Capacity = approx 25%
4	ECC = approx 65% of symbol	Recovery Capacity = approx 30%

[Notes]
[Default] n = 0
[Reference]
[Example]

<B2D n, P, n, d0...dk>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Store and prints the QRcode symbol data in the symbol save area**
[Format] ASCII <B2D n, P, n, d0...dk> <P>
[Range] n = n bytes of data
[Description] Store the QRcode symbol data (d0...dk) in the symbol save area.
- k bytes of d0...dk are processed as symbol data.
- Specify only the data code word of the symbol with this function.

[Notes]
[Default]
[Reference]
[Example]

<BA> n

Devices: STIMA-CLS
STIMA-CMP

[Name] **Change the ticket print intensity**
[Format] ASCII <BA n>
[Range]
[Description] Changes the ticket print intensity where n indicates the print mode. The possible values of n are as follows :

n	PRINT MODE
0	Black/white printing at 100% of maximum intensity
8	Black/white printing at 50% of maximum intensity
16	Black/white printing at 25% of maximum intensity
24	Black/white printing at 12% of maximum intensity
32	Black/white printing at 7% of maximum intensity
40	Black/white printing at 5% of maximum intensity

[Notes]
[Default]
[Reference]
[Example]

<BC n>

Devices: STIMA-CLS *(only for models with BARCODE reader)*,

[Name] **Read a BarCode**
[Format] ASCII <BC n>
[Range] n = 0, 1, A, C, T, S

[Description]

• With n = 0 the scan command is sent and the returned string is:
<BC0 ↵ x barcode ↵ >
where
- ↵ corresponds to CR character ($0D).
- x indicate the reading result ; the x value can be :
'!' : the barcode is read
'#': the barcode is not correctly read
- barcode is the barcode's characters read

• With n = 1 the returned string is :
<BC1 ↵ x barcode ↵ >
where
- barcode is the last barcode read through the printing commands '<p>', '<P>', '<q>', '<Q>'.

• With n = A returns the last barcodes read up to ten as maximum;the returned string is:
<BCA ↵
x barcode1 ↵
x barcode2 ↵
...
x barcode n ↵
>
where
- ↵ corresponds to CR character ($0D).
- x indicate the reading result ; the x value can be :↵
'!' : the barcode is read
'#': the barcode is not correctly read
- barcode is the barcode's characters read

• With n = C the returned string is:
<BCC ↵ x barcode ↵ >

where
- ↵ corresponds to CR character ($0D).
- x indicate the reading result; the x value can be :
'!' : the barcode is read
'#': the barcode is not correctly read
- barcode is the barcode's characters read

• With n = S returns the barcode reader status; the returned string is:
<BCS x>
where
- x indicate the barcode reader status; the x value can be:
'!' : the barcode reader is on
'#': the barcode reader is off

• With n = T enable/disable barcode reader to reading

[Notes] • The barcode read through the printing commands '<p>', '<P>', '<q>', '<Q>'.
[Default]
[Reference]
[Example]

<BEEP 1, tt>

Devices:	STIMA-CLS
	STIMA-CMP

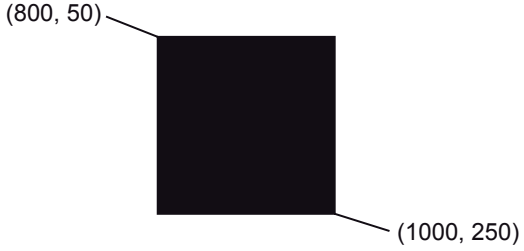
[Name] **Emits a beeb**
[Format] ASCII <BEEP1, tt>
[Range]
[Description] When this command is received, the printer emits a beeb as acoustic signalling.
tt is the beep time in milliseconds.
[Notes]
[Default]
[Reference]
[Example]

<BF x1 y1, x2, y2>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Command to create filled Box**
[Format] ASCII <BF x1,y1,x2,y2>
[Range]
[Description] Create a filled box on the basis of x1, y1, x2, y2 coordinates where :
x1 -> minimum horizontal coordinate
y1 -> minimum vertical coordinate
x2 -> maximum horizontal coordinate
y2 -> maximum vertical coordinate
[Notes] • If the coordinates are reversed, the printer automatically turns the points to create in any case the box.
• If the x2 is greater than the maximum horizontal width of graphic page, the box is drawn using the maximum width as last point.
• If the y2 is greater than the maximum length of graphic page defined by <LHT...> command, the box is drawn using the maximum length (defined by this command) as last point.
[Default]
[Reference] <OXY x, y>
[Example] Ticket example that use a filled box

```
<CB><BA8>
<BF800,50,1000,250>
<q>
```



<BMP>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Save a bitmap into flash disk**
[Format] ASCII <BMP>
[Range]
[Description] When this command is received, a bitmap with an image of the printing ticket is saved into “Prt-Ticket” folder on flash disk.
[Notes] The bitmap file name consists of data and time of ticket print.
[Default]
[Reference]
[Example]

<BMPD>

Devices:	STIMA-CLS

[Name] **Save a bitmap into SD/MMC card**
[Format] ASCII <BMPD>
[Range]
[Description] When this command is received, a bitmap with an image of the printing ticket is saved into “Prt-Ticket” folder on multimedia card.
[Notes] The bitmap file name consists of data and time of ticket print.
[Notes]
[Default]
[Reference]
[Example]

<BS height, width>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Define area for the box mode**
[Format] ASCII <BS height, width>
[Range]
[Description] Defines the area where position a character. If the box dimensions are bigger than the font, then the empty spaces are filled with white spaces, whereas if the box dimensions are smaller than the font, then the font is cutted.
[Notes] • To disable the Box Size set height and width parameters to 0 (<BS0,0>).
• This command is not active with TrueType fonts.
[Default]
[Reference]
[Example]

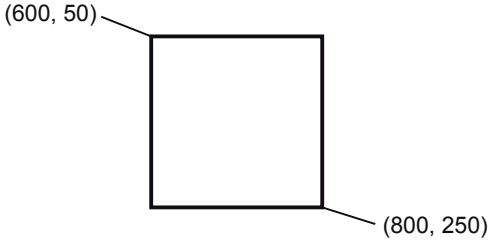
<BV x1, y1, x2, y2>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Command to create empty Box**
[Format] ASCII <BF x1,y1,x2,y2>
[Range]
[Description] Create an empty box on the basis of x1, y1, x2, y2 coordinates where :
x1 -> minimum horizontal coordinate
y1 -> minimum vertical coordinate
x2 -> maximum horizontal coordinate
y2 -> maximum vertical coordinate
[Notes] • The box border is fixed to 1mm (8 dots)
• If the coordinates are reversed, the printer automatically turns the points to create in any case the box.
• If the x2 is greater than the maximum horizontal width of graphic page, the box is drawn using the maximum width as last point.
• If the y2 is greater than the maximum length of graphic page defined by <LHT...> command, the box is drawn using the maximum length (defined by this command) as last point.

STIMA-CLS (300dpi models), STIMA-CMP (300dpi models)
• The box border is fixed to 1mm (12 dots)

[Default]
[Reference] <OXY x, y>
[Example] Ticket example that use an empty box
<CB><BA8>
<BV600,50,800,250>



<BX x1, y1, x2, y2, s, t>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Command to create parametric Box**
[Format] ASCII <BX x1,y1,x2,y2, s, t >
[Range]

[Description] Create a box defined by the following parameters where :
x1 -> minimum horizontal coordinate
y1 -> minimum vertical coordinate
x2 -> maximum horizontal coordinate
y2 -> maximum vertical coordinate
s -> border thickness in dot (8 dot = 1mm)s ≤ 255
t -> Fill mode 0 ≤ t ≤ 9

STIMA-CLS (300dpi models), STIMA-CMP (300dpi models)
s -> border thickness in dot (12 dot = 1mm)s ≤ 255

t	FILL MODE
0	Deletes area
1	Fills area
2..8	Fills area with specific pattern
9	The area leaves unchanged (only for rectangle border)

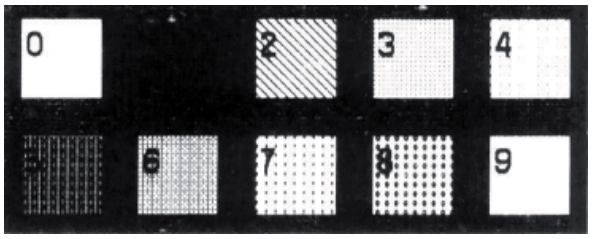
[Notes]
• If t > 9 the fill mode is set to 9
• If the coordinates are reversed, the printer automatically turns the points to create in any case the box.
• If the x2 is greater than the maximum horizontal width of graphic page, the box is drawn using the maximum width as last point.
• If the y2 is greater than the maximum length of graphic page defined by <LHT...> command, the box is drawn using the maximum length (defined by this command) as last point.
• If the defined thickness is greater than the half of box width, then the thickness is set to the half of box width to print (filled box).
• This command is not active with TrueType fonts.

[Default]
[Reference] <OXY x, y>
[Example]

Command sequence to generate a demo ticket with differents kinds of box

```
<CB><BA8><BS0,0>
<NR>
<BX200,100,300,200,16,0><RC120,220><F3><HW1,1>0
<BX300,100,400,200,16,1><RC120,320><F3><HW1,1>1
<BX400,100,500,200,16,2><RC120,420><F3><HW1,1>2
<BX500,100,600,200,16,3><RC120,520><F3><HW1,1>3
<BX600,100,700,200,16,4><RC120,620><F3><HW1,1>4
<BX200,200,300,300,16,5><RC220,220><F3><HW1,1>5
<BX300,200,400,300,16,6><RC220,320><F3><HW1,1>6
<BX400,200,500,300,16,7><RC220,420><F3><HW1,1>7
<BX500,200,600,300,16,8><RC220,520><F3><HW1,1>8
<BX600,200,700,300,16,9><RC220,620><F3><HW1,1>9
<q>
```

Example of what will be printed on ticket



<CB>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Clear data in the print buffer**
[Format] ASCII <CB>
[Range]
[Description] Clear data in the print buffer, move the cursor to column 0, row 0, resets the text rotation, set the deault font as current and disables the Box Size function during the character writing.
[Notes]
[Default]
[Reference]
[Example]

<COM1>

Devices: STIMA-CLS *(only for models with RFID board),*

[Name] **Terminate the communication toward RFID module**
[Format] ASCII <COM1>
[Range]
[Description] Terminates the communication toward RFID module.
[Notes]
[Default]
[Reference]
[Example]

<COM2>

Devices: STIMA-CLS *(only for models with RFID board),*

[Name] **Select the communication toward RFID module**
[Format] ASCII <COM2>
[Range]
[Description] Set the communication toward RFID module.
[Notes]
[Default]
[Reference]
[Example]

<DATE>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Print date**
[Format] ASCII <DATE>
[Range]
[Description] Prints date in the format specified by the command '<TDF>'.
[Notes]
[Default] "dd/mm/yy"
[Reference] <TIME>
[Example]

<DT m>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Read date/time through serial port**
[Format] ASCII <DT m>
[Range]
[Description] Read date/time of the real time clock and send it through serial port, in the format specified by m values as follows :

m	FORMAT
0	DD/MM/YY hh:mm:ss
1	DDMMYYhhmmss
2	YYMMDDhhmmss
3	YYMMDDhhmmssd

where :
DD = represents the dayof the date
MM = represents the month of the date
YY = represents year of the date
hh = represents the hour of the time
mm = represents the minutes of the time
ss = represents the seconds of the time
d = indicates the day of the week

The printer's answer will be :
<DT ↵ x data↵ >
where
- ↵ corresponds to CR character ($0D).
- x indicate the reading result ; the x value can be :
'!' : the command is executed successfully
'#': the command is not executed successfully
- data are the ASCII characters that represent the date/time.

[Notes]
[Default]
[Reference]
[Example] To read date/time in the "DDMMYYhhmmss" format, transmit: <DT 1>
For example if the current date/time are "15 September 2006 at 10:56:20 (AM)" the printer's answer is as follows :
<DT ↵ ! 151006105620 ↵ > if the transmission is successfully, otherwise
<DT ↵ # ↵ > if the transmission is not successful

<EPOS>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Change printer emulation to ESC/ POS**
[Format] ASCII <EPOS>
[Range]
[Description] Set the ESC/ POS emulation.
[Notes]
[Default]
[Reference]
[Example]

<F:bold>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set bold mode**
[Format] ASCII <F:bold>
[Range]
[Description] Set the bold printing mode
[Notes] This command is active only with TrueType fonts.
[Default]
[Reference]
[Example]

<F:clear>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Uninstall all TrueType fonts from printer**
[Format] ASCII <F:clear>
[Range]
[Description] Clear the installation memory by uninstalling TrueType fonts
[Notes]
- This command is active only with TrueType fonts.
- Use <F:err:n> command to verify the outcome of this command.

[Default]
[Reference] <F:err:n>
[Example]

<F:draw:n>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set drawing mode**
[Format] ASCII <F:draw:n>
[Range] n = ’0’, ‘1’, ‘2’
[Description] Set drawing mode functioning with following n values:

n = ‘0’ OR mode
n = ‘1’ XOR mode
n = ‘2’ AND mode

[Notes] This command is active only with TrueType fonts.
[Default] n = '0'
[Reference]
[Example]

<F:enc:ascii>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set ASCII encoding**
[Format] ASCII <F:enc:ascii>
[Range]
[Description] Set default encoding (ASCII) for TrueType fonts
[Notes] This command is active only with TrueType fonts.
[Default]
[Reference]
[Example]

<F:enc:utf-8>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set UTF-8 encoding**
[Format] ASCII <F:enc:utf-8>
[Range]
[Description] Set UTF-8 encoding for TrueType fonts
[Notes]
- This command is active only with TrueType fonts.
- The character's addressing respects the UNICODE™ standard (see www.unicode.org).

[Default]
[Reference]
[Example]

<F:enc:utf-16>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set UTF-16 encoding**
[Format] ASCII <F:enc:utf-16>
[Range]
[Description] Set UTF-16 encoding for TrueType fonts
[Notes]
- This command is active only with TrueType fonts.
- The character's addressing respects the UNICODE™ standard (see www.unicode.org).

[Default]
[Reference]
[Example]

<F:err:n>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Get error**
[Format] ASCII <F:err:n>
[Range] n = ’0’, ‘1’
[Description] Get the last error functioning with n, where

n = ‘0’ Get last error
n = ‘1’ Get last error + internal error code

[Notes]
- Use this command to know if an error occurs during the execution of commands for TrueType fonts management (as <F:filename.ttf> or <F:clear>).
- To know the internal error codes list, contact Customer Service.
- This command is active only with TrueType fonts.

[Default]
[Reference]
[Example]

<F:*filename.ttf*>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Install new font**
[Format] ASCII <F:*filename.ttf*>
[Range]
[Description] Install a new TrueType font.
[Notes]
- This command is active only with TrueType fonts.
- Use <F:err:n> command to verify the outcome of this command.

[Default]
[Reference] <F:err:n>
[Example]

<F:italic>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set italic mode**
[Format] ASCII <F:italic>
[Range]
[Description] Set the italic printing mode
[Notes] This command is active only with TrueType fonts.
[Default]
[Reference]
[Example]

<F n>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Select the font**
[Format] ASCII <F n>
[Range]
[Description] Selects the current font where n indicates the font to use.
[Notes]
[Default]
[Reference]
[Example]

<F:regular>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set regular mode**
[Format] ASCII <F:regular>
[Range]
[Description] Set the regular printing mode
[Notes] This command is active only with TrueType fonts.
[Default]
[Reference]
[Example]

<F:rotate:aa>

Devices:	STIMA-CLS
	STIMA-CMP

[Name]	**Set rotation angle for TrueType font**
[Format]	ASCII <F:rotate:aa>
[Range]	0 ≤ aa ≤ 360
[Description]	Set rotation angle for TrueType font, functioning with aa.
[Notes]	• This command is active only with TrueType fonts. • For TrueType fonts, it is also possible to use the commands for standard angles of rotation (<NR>, <RR>, <RL>, <RU>).
[Default]	aa = 0
[Reference]	<NR>, <RR>, <RL>, <RU>
[Example]	

<F:size:nn>

Devices:	STIMA-CLS
	STIMA-CMP

[Name]	**Set font dimension**
[Format]	ASCII <F:size:nn>
[Range]	
[Description]	Set font dimension functioning with n.
[Notes]	• The size is not expressed in pixels but in points • This command is active only with TrueType fonts.
[Default]	10 points
[Reference]	
[Example]	

<HW height, width>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set height and width of the current font**

[Format] ASCII <HW height, widht>

[Range]

[Description] Modifies the height and width of the current font where height and width are the multiplier coefficients of heigth and width of how enlarge the font. Both values can be:

1: Font dimension ×1
2: Font dimension ×2
3: Font dimension ×3
4: Font dimension ×4
5: Font dimension ×5
6: Font dimension ×6
7: Font dimension ×7
8: Font dimension ×8

[Notes] The command is ignored if height or width has different value from that reported above.

[Default]

[Reference]

[Example]

<KEYS x>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Enable/Disable keys panel**

[Format] ASCII <KEYS x>

[Range] x = 0, 1

[Description] Enables / disables the keys panel.

- When x = 0, the keys panel is disabled.
- When x = 1, the keys panel is enabled.

[Notes]
- When the keys panel is disabled, the keys may only be used after the printer has been reset.

[Default] x = 1

[Reference]

[Example]

<LHT length, height, notch, dimnotch>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set ticket dimension to print**

[Format] ASCII <LHT *length, height, notch, dimnotch*>

[Range]

[Description] Sets the ticket dimension to print in the following mode:
lenght is the ticket length (in dot);
height is the ticket height (in dot);
notch is the distance (in dot) between the ticket upper edge and strobe backside preprinted black mark;
dimnotch is the notch dimension (in dot).

[Notes] • If using the point (.) character as decimal separator instead of commas then the passed value are stored in EEProm.
• 1mm = 8 dot.

STIMA-CLS (300dpi models), STIMA-CMP (300dpi models)
• 1mm = 12 dot.

[Default]

[Reference]

[Example]

<LOAD>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Reload paper**
[Format] ASCII <LOAD>
[Range]
[Description] When this command is received, the printer performs a paper reloading.
[Notes] During the execution of the command, the printer indicates the paper end
[Default]
[Reference]
[Example]

<MM n>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Feed the paper of n step**
[Format] ASCII <MM n>
[Range]
[Description] When this command is received, the paper feed of n STEP.
[Notes] 1 STEP = 0,125 mm (1/8 mm)
[Default]
[Reference]
[Example]

<NCL x,y>Data

Devices: STIMA-CLS

STIMA-CMP

[Name] **Print horizontal CODE 128 barcode**

[Format] ASCII <NCL x, y>Data

[Range]

[Description] Print a CODE 128 barcode type in horizontal, where:
x = barcode height in millimetres;
y = byte number of the string to encode.

[Notes] • The top part of the bar code data string must be a code set selection character (CODE A, CODE B or CODE C) which selects the first code set.
• Special characters are defined by combining two characters “{“ and one character. ASCII character “{” is defined by transmitting “{“ twice, consecutively.

SPECIFIC CHARACTER	DATA TRANSMISSION		
	ASCII	HEX	Decimal
SHIFT	{S	7B, 53	123, 83
CODE A	{A	7B, 41	123, 65
CODE B	{B	7B, 42	123, 66
CODE C	{C	7B, 43	123, 67
FNC1	{1	7B, 31	123, 49
FNC2	{2	7B, 32	123, 50
FNC3	{3	7B, 33	123, 51
FNC4	{4	7B, 34	123, 52
‘{‘	{{	7B, 7B	123, 123

[Default]

[Reference]

[Example]

<NCP x,y>Data

Devices: STIMA-CLS

STIMA-CMP

[Name] **Print vertical CODE 128 barcode**

[Format] ASCII <NCP x, y>Data

[Range]

[Description] Print a CODE 128 barcode type in vertical, where:
x = barcode height in millimetres;
y = byte number of the string to encode.

[Notes] • The top part of the bar code data string must be a code set selection character (CODE A, CODE B or CODE C) which selects the first code set.
• Special characters are defined by combining two characters "{" and one character. ASCII character "{" is defined by transmitting "{" twice, consecutively.

SPECIFIC CHARACTER	DATA TRANSMISSION		
	ASCII	HEX	Decimal
SHIFT	{S	7B, 53	123, 83
CODE A	{A	7B, 41	123, 65
CODE B	{B	7B, 42	123, 66
CODE C	{C	7B, 43	123, 67
FNC1	{1	7B, 31	123, 49
FNC2	{2	7B, 32	123, 50
FNC3	{3	7B, 33	123, 51
FNC4	{4	7B, 34	123, 52
'{'	{{	7B, 7B	123, 123

[Default]

[Reference]

[Example]

<NFL s>Data

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print horizontal ITF barbode**
[Format] ASCII <NFL s>Data
[Range]
[Description] Print an ITF barcode type in horizontal. The s parameter indicates the barcode height in millimetres. The Data parameter contains the data to convert, with start and stop characters of barcode.
[Notes]
[Default]
[Reference]
[Example]

<NFP s>Data

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print vertical ITF barcode**
[Format] ASCII <NFP s>Data
[Range]
[Description] Print an ITF barcode type in vertical. The s parameter indicates the barcode height in millimetres. The Data parameter contains the data to convert, with start and stop characters of barcode.
[Notes]
[Default]
[Reference]
[Example]

<NL s>Data

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print an horizontal CODE 39 barcode**
[Format] ASCII <NL s>Data
[Range]
[Description] Print a CODE 39 barcode type in horizontal. The s parameter indicates the barcode height in millimetres. The Data parameter contains the data to convert, with start and stop characters of barcode.
[Notes]
[Default]
[Reference]
[Example]

<NP s>Data	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print a vertical CODE 39 barcode**
[Format] ASCII <NP s>Data
[Range]
[Description] Print a CODE 39 barcode type in vertical. The s parameter indicates the barcode height in millimetres. The Data parameter contains the data to convert, with start and stop characters of barcode.
[Notes]
[Default]
[Reference]
[Example]

<NR>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Restore the text in horizontal**
[Format] ASCII <NR>
[Range]
[Description] Restore the text in horizontal, without rotation.
[Notes]
[Default]
[Reference] <F:rotate:aa>
[Example]

<OXY x, y>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set printing offset**

[Format] ASCII <OXY x, y>

[Range]

[Description] Sets an offset that will be added to all the transmitted positions. This command is useful to adjusting the printout positions, without having to modify all the transmitted positions.
x is the distance (in dot) between the ticket upper edge and the starting point of printing;
y is the distance (in dot) between the ticket lateral edge and the starting point of printing.

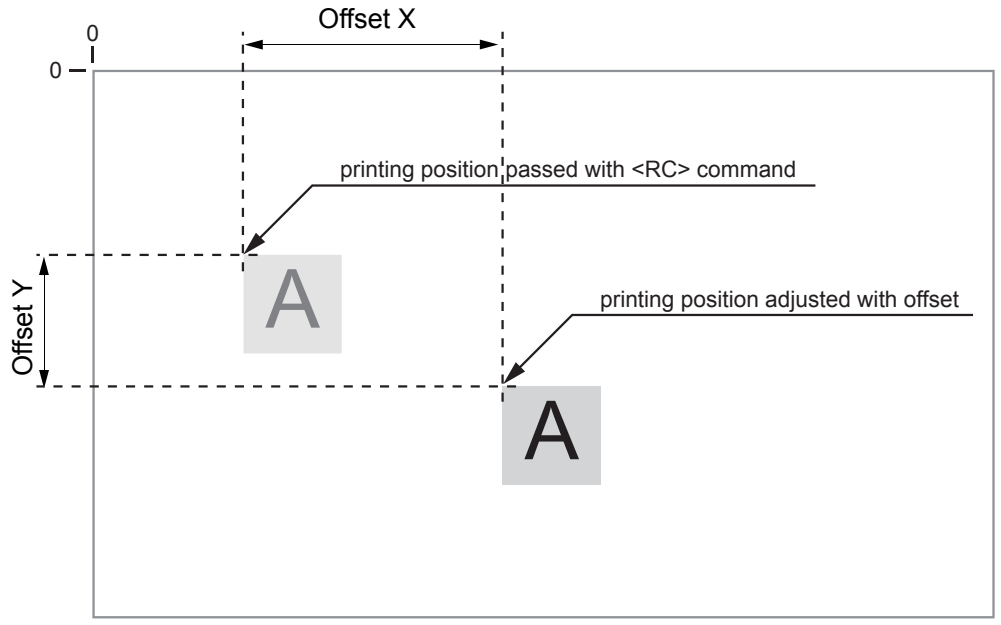
[Notes]
- If using the point (.) character as decimal separator instead of commas then the passed value are stored in EEProm.
- It's possible to set negative values of offset.
- If you get negative values after adding the offset, (the printing position is outside the ticket), the printing position is set to 0.
- 1mm = 11,8 dot.

STIMA-CLS (300dpi models), STIMA-CMP (300dpi models)
- 1mm = 12 dot.

[Default]

[Reference]

[Example]



<p>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Printing command (cut and buffer cleaning) in reverse**
[Format] ASCII <p>
[Range]
[Description] This command executes the following operations :
- align the ticket to notch;
- barcode reader turn ON (only for models with BARCODE reader);
- prints ticket;
- clear the data in the print buffer;
- align the ticket to cut;
- executes a ticket cut.

STIMA-CMP

This command executes the following operations :
- align the ticket to notch;
- prints ticket;
- clear the data in the print buffer;
- activate the ticket presentation mode;

[Notes]
• Print ticket in reverse
• After printing, the data of the barcode read and the reading result, are stored in a circular buffer.
• To read the barcode acquired during printing, use the '<BC1>' or '<BCA>' commands.

[Default]
[Reference] <CB>
[Example]

<P>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Printing command (cut and buffer cleaning) in normal**

[Format] ASCII <P>

[Range]

[Description] This command executes the following operations :
- align the ticket to notch;
- barcode reader turn ON (only for models with BARCODE reader);
- prints ticket;
- clear the data in the print buffer;
- align the ticket to cut;
- executes a ticket cut.

STIMA-CMP

This command executes the following operations :
- align the ticket to notch;
- prints ticket;
- clear the data in the print buffer;
- activate ticket presentation mode;

[Notes]
- Print ticket in normal
- After printing, the data of the barcode read and the reading result, are stored in a circular buffer.
- To read the barcode acquired during printing, use the '<BC1>' or '<BCA>' commands.

[Default]

[Reference] <CB>

[Example]

<PCHexNumLogo HexXDim HexYDim HexTBD Id Hexdata>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Save the image received from serial port into flash**
[Format] ASCII <PCHexNumLogo HexXDim HexYDim HexTBD Id Hexdata>
[Range]
[Description] Save the image received from serial port into printer flash; if the number used to store logo is not already present inside the printer, the new logo is appended to stored logos, otherwise the image is overwritten and moved in the last position of flash.
• The source image must be a monochrome bitmap.

HexNumLogo indicates the number of logo, 2 bytes expressed in hexadecimal notation;
HexXDim indicates the logo horizontal dimension in pixel, 2 bytes expressed in hexadecimal notation; the value must be multiple of 32;
HexYDim indicates the logo vertical dimension in pixel, 2 bytes expressed in hexadecimal notation;
HexTBD 2 bytes fixed to $00 (RESERVED);
Id indicates the file-name of the logo, a sequence of 16 bytes that identify univocally the logo;
Hexdata are the image data (logo's bytes less than the first 62 bytes of the header).

• The printer returns a sequence of bytes as follows :

<PC0> if the saving include an incorrect syntax or the available memory in flash for logos is finished (128Kbyte);
<PC1n> if the syntax command is correct and there's enough memory in flash for saving logos; n returns the status of the flash programming :
$88 -> Sector not erased
$77 -> Error during programming
$AA -> Programming done.

[Notes] • If file-name length is shorter than 16 byte, add a terminator (0) and make padding to 16 characters.
• If file-name extension is absent, it is automatically added to the name.
[Default]
[Reference]
[Example] The following example shows the bytes sequence received from serial port to store a logo into the printer flash :

```
Offset      Hexadecimal                                                 ASCII
00000000: 3C 50 43 00 08 00 60 00 58 00 00 65 78 61 6D 70   <PC...`.X..examp
00000010: 6C 65 6C 6F 67 6F 38 2E 62 6D 70 00 00 00 00 2F   lelogo8.bmp
....
....                                   Image data less than the first 62 bytes
....
>
```

If the programming is successful, the printer's answer will be:

HEX	$3C	$50	$43	$31	$AA	$3E
ASCII	<	P	C	1	{}	>

<PE n>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Delete image**
[Format] ASCII <PE n>
[Range]
[Description] Deletes image defined by n.
The printer returns a sequence of bytes as follows :
<*PE0*> Image n not found;
<*PE1n*> Image found; n returns to the flash programming status
$88 -> Sector not erased
$77 -> Error during erasing operation
$AA -> Erasing done.
[Notes]
[Default]
[Reference]
[Example]

<PIn>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Get pictures header info**
[Format] ASCII <PIn>
[Range]
[Description] Gets the logo header info stored specified by n (express in ASCII). The printer returns a bytes sequence as follows :
<PI*e[ID]*> where
• *e* indicates the search result
e = 0 picture not found
e = 1 picture found

• *[ID]* indicates the file-name that identify the logo, a sequence of 16 bytes that was defined when the logo is stored. This field is optional because it's returned only if the logo has been found.
[Notes]
[Default]
[Reference]
[Example]

<PL>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Get pictures header list**
[Format] ASCII <PL>
[Range]
[Description] This command requests to the printer the list of stored logo. The printer returns a bytes sequence as follows :
<PL *CrLf [N-ID CrLf]*> where
• *CrLf* indicates the two characters $0D (Carriage return) and $0A (Line Feed);
• *N* is the number of stored logo;
• *[ID]* indicates the file-name that identify the logo, a sequence of 16 bytes that was defined when the logo is stored. This field is optional because it's returned only if the logo has been found.
[Notes] • The fields enclosed in square bracket are repeated for all number of stored images.
[Default]
[Reference]
[Example]

<PN>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Get number of stored logo**
[Format] ASCII <PN>
[Range]
[Description] This command sends to the printer the request of number of stored logo; the printer returns a bytes sequence as follows : <PN*n*>
where *n* (in ASCII format) indicates the number of stored images.
[Notes]
[Default]
[Reference]
[Example] If in the flash memory are stored 10 logos send this command

HEX	$1C	$90
ASCII	FS	{}

The printer's answer will be :

HEX	$3C	$50	$4E	$31	$30	$3E
ASCII	<	P	N	1	0	>

<PP n, x, y, sp>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Print image in graphic page**
[Format] ASCII <PP n, x, y, sp>
[Range]
[Description] Prints image in graphic page where
• *n* is the number of image to print;
• *x* indicates the horizontal position inside the graphic page
• *y* indicates the vertical position inside the graphic page
• *sp* indicates the thickness value of the image border (express in dot).
[Notes] • if *n* is a negative number the image is printed as a background image, without deleting the area below.
[Default]
[Reference] <OXY x, y>
[Example] Several printing commands in graphic page; in the first printing command the image no. 2 is printed with border, instead the other images are printed without border:

```
<CB><n><BA8><HW1,1><BS0,0>
<PP2,10,10,8>                 (image printed with border)
<PP1,10,200,0>                (image printed without border)
<PP3,210,200,0>               (image printed without border)
<PP4,620,200,0>               (image printed without border)
<q>
```

<PR n, x, y, sp>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Print rotated image**
[Format] ASCII <PR n, x, y, sp>
[Range]
[Description] Prints rotated image in graphic page where
• *n* is the number of image to print;
• *x* indicates the horizontal position inside the graphic page
• *y* indicates the vertical position inside the graphic page
• *sp* indicates the thickness value of the image border (express in dot).
[Notes] • if *n* is a negative number the image is printed as a background image, without deleting the area below.
[Default]
[Reference] <OXY x, y>
[Example] Several printing commands in graphic page; in the first printing command the image no. 2 is printed with border, instead the other images are printed without border:

```
<CB><n><BA8><HW1,1><BS0,0>
<PR2,10,10,8>                 (image printed with border)
<PR1,10,200,0>                (image printed without border)
<PR3,210,200,0>               (image printed without border)
<PR4,620,200,0>               (image printed without border)
<q>
```

<q>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Printing command (only buffer cleaning) in reverse**

[Format] ASCII <q>

[Range]

[Description] This command executes the following operations :
- align the ticket to notch;
- barcode reader turn ON (only for models with BARCODE reader);
- prints ticket;
- clear the data in the print buffer;

STIMA-CMP

This command executes the following operations :
- align the ticket to notch;
- prints ticket;
- clear the data in the print buffer;

[Notes]
• Print ticket in reverse
• After printing, the data of the barcode read and the reading result, are stored in a circular buffer.
• To read the barcode acquired during printing, use the '<BC1>' or '<BCA>' commands.

[Default]

[Reference] <CB>

[Example]

<Q>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Printing command (only buffer cleaning) in normal**

[Format] ASCII <Q>

[Range]

[Description] This command executes the following operations :
- align the ticket to notch;
- barcode reader turn ON (only for models with BARCODE reader);
- prints ticket;
- clear the data in the print buffer;

STIMA-CMP

This command executes the following operations :
- align the ticket to notch;
- prints ticket;
- clear the data in the print buffer;

[Notes]
- Print ticket in normal
- After printing, the data of the barcode read and the reading result, are stored in a circular buffer.
- To read the barcode acquired during printing, use the '<BC1>' or '<BCA>' commands.

[Default]

[Reference] <CB>

[Example]

<RC row, column>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name]	**Position the cursor**
[Format]	ASCII <RC row, column>
[Range]	
[Description]	Moves the cursor at the position specified by row and column parameters.
[Notes]	• The row and column values must be a number with four digit at most, otherwise the command will be ignored.
[Default]	
[Reference]	<OXY x, y>
[Example]	To move the cursor at row (dot) 10, column (dot) 30 the command sequence is : <RC 10,30>

<RL>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name]	**Rotate text 90° counter-clockwise**
[Format]	ASCII <RL>
[Range]	
[Description]	Rotate text 90° counter-clockwise, (to the left).
[Notes]	
[Default]	
[Reference]	<F:rotate:aa>
[Example]	

<RR>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Rotate text 90° clockwise**
[Format] ASCII <RR>
[Range]
[Description] Rotate text 90° clockwise, (to the right).
[Notes]
[Default]
[Reference] <F:rotate:aa>
[Example]

<RU>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Rotate text 180°**
[Format] ASCII <RU>
[Range]
[Description] Rotate text 180°.
[Notes]
[Default]
[Reference] <F:rotate:aa>
[Example]

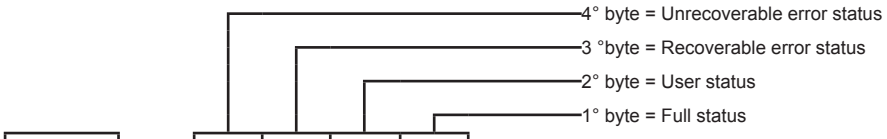
<SB x>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **FULL STATUS back request**
[Format] ASCII <SB x y>

[Range] '0' ≤ x ≤ '9', 'A' ≤ x ≤ 'F'

[Description]
• FULL STATUS back request.
• x specify the request for FULL STATUS. where x identify the bitmask with the following table:



x		*BIT3*	*BIT2*	*BIT1*	*BIT0*
0	»	0	0	0	0
1	»	0	0	0	1
2	»	0	0	1	0
3	»	0	0	1	1
4	»	0	1	0	0
5	»	0	1	0	1
6	»	0	1	1	0
7	»	0	1	1	1
8	»	1	0	0	0
9	»	1	0	0	1
A	»	1	0	1	0
B	»	1	0	1	1
C	»	1	1	0	0
D	»	1	1	0	1
E	»	1	1	1	0
F	»	1	1	1	1

[Notes]
• The status sent from the printer will be so composed as follows:

<SB x, *CHR1 ..... CHRn*>

where:

SB	=	fixed characters
x	=	is the bitmask to identify the request.
CHR1..CHRn	=	response bytes referred to the following tables:

1° byte = Full status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Paper present
	On	01	1	Paper not present
1	-	-	-	RESERVED
2	Off	00	0	Paper present
	On	04	4	Near paper end
3	-	-	-	RESERVED
4	-	-	-	RESERVED
5	Off	00	0	Ticket not present in output
	On	20	32	Ticket present in output
6	Off	00	0	Not virtual paper end
	On	40	64	Virtual paper end
7	Off	00	0	Notch found
	On	80	128	Notch not found

2° byte = User status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Printing head down
	On	01	1	Printing head up error
1	Off	00	0	Cover closed
	On	02	2	Cover opened
2	Off	00	0	No spooling
	On	04	4	Spooling
3	Off	00	0	Drag paper motor off
	On	08	8	Drag paper motor on
4	-	-	-	RESERVED
5	Off	00	0	LF key released
	On	20	32	LF key pressed
6	Off	00	0	FF key released
	On	40	64	FF key pressed
7	-	-	-	RESERVED

3° byte = Recoverable error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Head temperature ok.
	On	01	1	Head temperature error
1	Off	00	0	No COM error
	On	02	2	RS232 COM error
2	-	-	-	RESERVED
3	Off	00	0	Power supply voltage ok
	On	08	8	Power supply voltage error
4	-	-	-	RESERVED
5	Off	00	0	Acknowledge command
	On	20	32	Not acknowledge command error
6	Off	00	0	Free paper path
	On	40	64	Paper jam
7	Off	00	0	Notch search ok
	On	80	128	Error in notch search

STIMA-CLS

4° byte = Unrecoverable error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	Off	00	0	Cutter ok
	On	01	1	Cutter error
1	Off	00	0	Cutter cover ok
	On	02	2	Cutter cover open
2	Off	00	0	RAM ok
	On	04	4	RAM error
3	Off	00	0	EEPROM ok
	On	08	8	EEPROM error
4	-	-	-	RESERVED
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	-	-	-	RESERVED

STIMA-CMP

4° byte = Unrecoverable error status

BIT	OFF/ON	HEX	Decimal	FUNCTION
0	-	-	-	RESERVED
1	Off	00	0	Frontal cover ok
	On	02	2	Frontal cover open
2	Off	00	0	RAM ok
	On	04	4	RAM error
3	Off	00	0	EEPROM ok
	On	08	8	EEPROM error
4	-	-	-	RESERVED
5	-	-	-	RESERVED
6	-	-	-	RESERVED
7	-	-	-	RESERVED

[Default]
[Reference]
[Example]

<SBF, 00000000> no errors
<SBF, 04000000> near paper end
<SBF, 01030000> paper not present, printing head up, cover open

To request the Full status (1° byte) and the User status (2°byte) proceed as follow:
see bitmask:
*BIT*3 = 0 *BIT*2 = 0 *BIT*1 = 1 *BIT*0 =1 quindi 0011 = 3
Send the command: <AFSB3>
Possible answer: <SB3,0504>
where:
1°byte

0 = 0000	bit7 = 0 (notch found)	bit6 = 0 (not virtual paper end)	bit5 = 0 (ticket not present)	bit4 =0 (RESERVED)
5 = 0101	bit3 = 0 (RESERVED)	bit2 = 1 (near paper end)	bit1 = 0 (RESERVED)	bit0 =1 (Paper not present)

2°byte

0 = 0000	bit7 = 0 (RESERVED)	bit6 = 0 (FF key released)	bit5 = 0 (LF key released)	bit4 =0 (RESERVED)
4 = 0100	bit3 = 0 (drag motor off)	bit2 = 1 (spooling)	bit1 = 0 (cover closed)	bit0 =0 (print head down)

<SDT m data>

Devices: STIMA-CLS

STIMA-CMP

[Name] **Set date/time of the real time clock through serial port**

[Format] ASCII <SDT m data>

[Range]

[Description] Set date/time of the real time clock through serial port, in the format specified by m values as follows :

m	FORMAT
0	DD/MM/YY hh:mm:ss
1	DDMMYYhhmmss
2	YYMMDDhhmmss
3	YYMMDDhhmmssd

where:

DD = represents the day of the date

MM = represents the month of the date

YY = represents year of the date

hh = represents the hour of the time

mm = represents the minutes of the time

ss = represents the seconds of the time

d = indicates the day of the week

data are the ASCII characters relative to the date and time to set.

If the transmission has been received correctly and the command is valid, the printer returns the following string: <SDT ↵ x ↵ >

where

- ↵ corresponds to CR character ($0D).
- x indicate the reading result ; the x value can be :
  - '!' : the command is executed successfully
  - '#': the command is not executed successfully

[Notes] • the day of the week is calculated automatically from the printer and then it's possible that the returned value is different from the one transmitted.

[Default]

[Reference]

[Example] For example to set the date and time to "29 September 2006 at 13:51:00 (PM)" in the "YYMMDDhhmmss" format transmit:

<SDT 2 061029135100>

The printer's answer will be :

<SDT ↵ ! ↵ > if the transmission is successfully, otherwise

<SDT ↵ # ↵ > if the transmission is not successfully

<S n>

Devices: STIMA-CLS

STIMA-CMP

[Name] **Status request**

[Format] ASCII <Sn>

[Range]

[Description] The host can ask to the printer many different status info; the n parameter indicates which type of request :

STIMA-CLS

If n = 1 the printer return a byte that represent the status:

$10: Paper end
$11: No error
$19: Wrong command
$20: Notch error
$21: Heading over temperature error
$22: Power supply voltage error
$23: Cutter error

STIMA-CMP

If n = 1 the printer return a byte that represent the status:

$10: Paper end
$11: No error
$19: Wrong command
$20: Notch error
$21: Heading over temperature error
$22: Power supply voltage error

• If n=3 the printer return ACK ($06) if printing is properly finished, otherwise return NACK ($15). If the request will be transmitted during printing phase, it waits the end of the process and then is sent the answer.

[Notes]

[Default]

[Reference]

[Example]

<SP n>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Change speed**
[Format] ASCII <SP n>
[Range]
[Description] Sets printing speed using n as follows :

n	PRINTING SPEED
0	High quality
1	Normal
2	High speed

[Notes]
[Default]
[Reference]
[Example]

<SVEL>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Change printer emulation to SVELTA**
[Format] ASCII <SVEL>
[Range]
[Description] Set the SVELTA emulation.
[Notes]
[Default]
[Reference]
[Example]

<T>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Get the ticket dimension to print**
[Format] ASCII <T>
[Range]
[Description] Get the ticket dimensions to print, in the Ticket Size format.
[Notes]
[Default]
[Reference]
[Example]

<TDF m data>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set user-defined date/time formats**
[Format] ASCII <TDF m data>
[Range]
[Description] Sets the format string for date and time used to printing;
• m specifies which user-defined string format is set
D for date
T for time
• data are the ASCII characters relative to user-defined date/time formats.
• the maximum length of the user-defined date/time format string is 64 chars.
The following table shows characters used to create user-defined date/time formats :

CHARACTER	DESCRIPTION
I	Selects Italian language
E	Selects English language (is the default language)
c	Selects default date/time
d	Displays the day as a number without a leading zero (1-31).
dd	Displays the day as a number with a leading zero (01-31).
ddd	Displays the day as an abbreviation (for example, Sun).
dddd	Displays the day as a full name (for example, Sunday).
ddddd	Displays the date as a complete date in the short format where date values are formatted with day, month and year (the short date format is dd/mm/yy).
dddddd	Displays the date as a complete date in the extended format where date values are formatted with day, month and year (the extended date format is dd mmmm, yyyy).
m	Displays the month as a number without a leading zero (1-12). If the character m is immediately after the character h or hh , displays the minutes instead of month (see also the n character formatting).
mm	Displays the month as a number with leading zeros (01-12). If the character m is immediately after the character h or hh , displays the minutes instead of month (see also the nn character formatting).
mmm	Displays the month as an abbreviation (for example, Jan).
mmmm	Displays the month as a full month name (for example, January).
yy	Displays the year in two-digit numeric format with a leading zero.
yyyy	Displays the year in four digit numeric format.

CHARACTER	DESCRIPTION
h	Displays the hour as a number without leading zeros (0-23)
hh	Displays the hour as a number with leading zeros (00-23)
n	Displays the minutes as a number without leading zeros (0-59)
nn	Displays the minutes as a number with leading zeros (00-59)
s	Displays the seconds as a number without leading zeros (0-59)
ss	Displays the seconds as a number with leading zeros (00-59)
ttttt	Displays the time in the extended format where time values are formatted with hour, minutes and seconds (the extended time format is h:mm:ss).
AM/PM	Using the 12-hour clock and displays the AM prefix in uppercase next to the hours that preceding midday and the PM prefix in uppercase next to the hours between midday and midnight.
am/pm	Using the 12-hour clock and displays the am prefix in lowercase next to the hours that preceding midday and the pm prefix in lowercase next to the hours between midday and midnight.
A/P	Using the 12-hour clock and displays the A prefix in uppercase next to the hours that preceding midday and the a prefix in uppercase next to the hours between midday and midnight.
a/p	Using the 12-hour clock and displays the a prefix in lowercase next to the hours that preceding midday and the a prefix in lowercase next to the hours between midday and midnight.

[Notes]
[Default]
[Reference]
[Example] For example to print the current time with the string format ‘yy/mm/dd hh:mm:ss’ follow these steps :
1. Send the following command to define the user-defined Time string format:
<TDF T yy/mm/dd hh:mm:ss>
2. Send the following command to print the time :
<TIME>
If the date and time is 22 October 2006 at 17:35:27 (PM) the output string printed will be:
06/10/22 17:35:27

<TIME>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Print Time**
[Format] ASCII <TIME>
[Range]
[Description] Prints time with the format specified by the command ‘<TDF>’.
[Notes]
[Default] “hh:nn:ss”
[Reference] <DATE>
[Example]

<X n, m>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Define the barcode lines dimension**
[Format] ASCII <X n, M>
[Range]
[Description] n defines the thins lines dimension (in dot) of barcode. The M parameter defines the barcode printing speed if it must be printed rotated.
[Notes] If the M parameter = 'H' as ASCII value, the barcodes will be printed in high speed. Otherwise if if the M parameter = 'L' as ASCII value the barcodes will be printed at reduced speed (only if n is less than 4).
[Default]
[Reference]
[Example]

4 FGL EMULATION

The following table lists all the commands for function management. The commands must be transmitted to the device as command string enclosed between '<' character and '>' character.

COMMAND DESCRIPTION TABLE

Com. ASCII	Description
PRINT COMMANDS	
<g>	Ascii graphics command
<G>	Graphics command
<h>	Print and cut command
<HX>	Draw horizontal line
<LM>	Set landscape printing mode
<LT #>	Line thickness command
<p>	Print and cut ticket
<P>	Print and cut ticket
<PM>	Set portrait printing mode
<PP>	Purge printer of remaining ticket command
<ppd>	Purge printer of remaining ticket command
<ppe>	Purge printer of remaining ticket command
<q>	Print ticket
<Q>	Print ticket
<r>	Print command
<RE>	Repeat command
<VX r>	Draw vertical line command
CHARACTERS COMMAND	
<BS width, height>	Define box dimensions
<DI>	Disable inverted print mode
<EI>	Enable inverted print mode
<F #>	Select font size
<HW #,#>	Height/width command
<NR>	Rotation command
<RL>	Rotation command
<RR>	Rotation command
<RTF #,#>	True type resident font selection command
<RU>	Rotation command
<SF>	Print downloadable font command
<ttf #>	True type download command
<TTF #,#>	True type downloaded font selection command
PRINT POSITION COMMANDS	
<RC R,C>	Position the cursor
<RX	Set X position

<RY	Set Y position
<SP>	Starting point command
BIT-IMAGE COMMANDS	
<BX r,c>	Command to draw a box
<CB>	Clear data in the buffer
STATUS COMMAND	
<s #>	Status command
<S #>	Status command
BARCODE COMMANDS	
<FL	Print landscape ITF barcode
<Fl	Print landscape ITF barcode
<fL	Print landscape ITF barcode
<fl	Print landscape ITF barcode
<FP	Print portrait ITF barcode
<Fp	Print portrait ITF barcode
<fP	Print portrait ITF barcode
<fp	Print portrait ITF barcode
<NL	Print landscape CODE39 barcode
<Nl	Print landscape CODE39 barcode
<nL	Print landscape CODE39 barcode
<nl	Print landscape CODE39 barcode
<NP	Print portrait CODE39 barcode
<Np	Print portrait CODE39 barcode
<nP	Print portrait CODE39 barcode
<np	Print portrait CODE39 barcode
<OL	Print landscape CODE128 barcode
<Ol	Print landscape CODE128 barcode
<oL	Print landscape CODE128 barcode
<ol	Print landscape CODE128 barcode
<OP	Print portrait CODE128 barcode
<Op	Print portrait CODE128 barcode
<oP	Print portrait CODE128 barcode
<op	Print portrait CODE128 barcode
<X #>	Barcode expanded command
MISCELLANEOUS COMMANDS	
<BEMU>	Change printer emulation to BOCA
<BI>	Barcode interpretation command
<bmp>	Save and print a bmp image
<COM2>	Select the communication toward RFID
<EPOS>	Change printer emulation to ESC/ POS
<n>	Transparent mode off command

<PC>	Print ticket count command
<pcx>	Pcx file being sent command
<rtc #>	Reset ticket count
<SVEL>	Change printer emulation to SVELTA
<t>	Transparent mode on command
<TC 1234567>	Load ticket count command
TICKET MANAGEMENT COMMANDS	
<BA n>	Change the ticket print intensity
LOGOS MANAGEMENT COMMANDS	
<dpl>	Delete permanent length
<DF>	Delete file command
<ID #>	Assign ID number to fonts and logos
<LD #>	Print downloadable logo command
<LO #>	Print resident logo command
<PF>	Permanent file command
<pl>	Permanent print length command
<PL>	Temporary print length command
<TF>	Temporary file command
<tl #>	Permanent ticket length command

Given below are more detailed descriptions of each command.

<BA n>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Set printing density**
[Format] ASCII <BA n>
[Range]
[Description] Changes the ticket print intensity where n indicates the print mode. The possible values of n are as follows :

n	PRINT MODE
0	Black/white printing at 100% of maximum intensity
8	Black/white printing at 50% of maximum intensity
16	Black/white printing at 25% of maximum intensity
24	Black/white printing at 12% of maximum intensity
32	Black/white printing at 7% of maximum intensity
40	Black/white printing at 5% of maximum intensity

[Notes]
[Default]
[Reference]
[Example]

<BEMU>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Change printer emulation to BOCA**
[Format] ASCII <BEMU>
[Range]
[Description] Set the FGL emulation.
[Notes]
[Default]
[Reference]
[Example]

<BI>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Barcode interpretation**
[Format] ASCII <BI>
[Range]
[Description] This command will cause the bar code interpretation (human readable code) to be printed underneath the barcode. The <BI> command is only active for the bar code immediately following it. The interpretation is printed in font1 and is automatically adjusted depending on the size of the bar code. The different bar code command sequences are listed under the particular bar code supplement desired.
[Notes]
[Default]
[Reference]
[Example]

<bmp>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Save and print bmp image**
[Format] ASCII <bmp>
[Range]
[Description] This command notifies the printer that a BMP image file is being sent to the printer.
[Notes]
[Default]
[Reference]
[Example] This command must be sent as part of a command sequence like <SP#,#><bmp><G#>pcx bytes.

<BS width, height >	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Define box dimensions**
[Format] ASCII <BS width, height>
[Range]
[Description] This command changes the box size to the values sent. The first value is the box width and the second is the box height. The character printed sits in this box.
This command is used to get compressed or expanded spacing of characters.
[Notes] When printing in inverted mode, the entire box size will be printed in the negative image. If a character only takes up a small fraction of the box size, it will have a large black border around it. This border can be trimmed by sending a box size that is smaller than the font size.
[Default]
[Reference]
[Example] The font3 box size is 20x33 so in this example the character will sit in a box that is one dot higher (34) and one dot wider (21) than normal. This means that there will be an extra dot space between characters and between lines of characters.

<BX r, c>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Command to draw a box**
[Format] ASCII <BX r,c>
[Range]
[Description] This command tells the printer to draw a box "r" dot rows tall and "c" dot columns wide.
[Notes] We recommend that a row/column command is used immediately following this command to prevent any confusion regarding the location of the cursor following this command.
[Default]
[Reference]
[Example]

<CB>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Clear data in the buffer**
[Format] ASCII <CB>
[Range]
[Description] This command will clear the ticket buffer and be sent before any other commands. In most instances, this command is not needed as the printer clears itself automatically.
The <CB> command restores all font definitions back to their normal states.
This command should be avoided as it degrades printer throughput.
[Notes]
[Default]
[Reference]
[Example]

<COM2>

Devices:	STIMA-CLS *(only for models with RFID)*

[Name] **Select the communication toward RFID module**
[Format] ASCII <COM2>
[Range]
[Description] Set the communication toward RFID module.
[Notes]
[Default]
[Reference]
[Example]

<DF #>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Delete file command**
[Format] ASCII <DF #>
[Range] 1 ≤ # ≤ 11
[Description] The command is used to delete permanent and temporary files:

#	function
1	Delete all permanent and temporary files (same as an ESC c command).
2	Delete all temporary files.
3	Delete all permanent and temporary soft fonts.
4	Delete all temporary soft fonts.
5	Delete all permanent and temporary logo files.
6	Delete all temporary logo files.
7	Delete individual soft font file.
8	Delete individual logo file.
9	Reclaim (defrag) download flash space. Use this command to free up any 'dirty' bytes in the flash. (New command)
10	Delete all TrueType Font files. (New command for FGL26 and FGL46 only)
11	Delete individual TrueType Font files. (New command for FGL26 and FGL46 only)

[Notes] The <ID#> command must precede the <DF7>, <DF8> or <DF11> command in order to delete an individual file.
[Default]
[Reference] <ID#>
[Example] If the printer has soft font1 , soft font2 , soft font3, and logo1 downloaded and you wanted to delete soft font2 you would send the following string: <ID2><DF7>. The next soft font downloaded would then be soft font4.

<DI>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Disable inverted print mode**
[Format] ASCII <DI>
[Range]
[Description] This command disables inverted print mode.
[Notes]
[Default]
[Reference] <EI>
[Example]

<dpl>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Delete permanent length**
[Format] ASCII <dpl>
[Range]
[Description] This command re-enables the automatic ticket measuring function of the printer after power on. This command is used when you want to delete the <pl#> or <tl#> command. This command clears the printing length and ticket length values from the Flash memory and re-enables the automatic ticket measuring function.
[Notes]
[Default]
[Reference] <pl#>, <tl#>
[Example]

<EI>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Enable inverted print mode**
[Format] ASCII <EI>
[Range]
[Description] This command enables inverted print mode (white on black printing).
(Presently unavailable with soft fonts.)
[Notes]
[Default]
[Reference]
[Example]

EPOS>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Change printer emulation to ESC/POS**
[Format] ASCII <EPOS>
[Range]
[Description] Set the ESC/POS emulation.
[Notes]
[Default]
[Reference]
[Example]

<F #>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Select font size**
[Format] ASCII <F #>
[Range] 1 ≤ # ≤ 13
[Description] This command sets the font size of the characters to be printed. The printer defaults to the font3 size on 200 dpi printers.

<F1>	Font1 characters (5x7)
<F2>	Font2 characters (8x16)
<F3>	OCRB (17x31)
<F4>	OCRA (5x9)
<F6>	large OCRB (30x52)
<F7>	OCRA (15x29)
<F8>	Courier (20x40)(20x33)
<F9>	small OCRB (13x20)
<F10>	Prestige (25x41)
<F11>	Script (25x49)
<F12>	Orator (46x91)
<F13>	Courier (20x40)(20X42)

[Notes] Alternate font sizes will be available on certain models.
[Default]
[Reference]
[Example]

<FL , <Fl , <fL , <fl

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print landscape ITF barcode**

[Format] ASCII <FL

[Range]

[Description] This command prints an ITF barcode type in landscape mode.

[Notes] Interleaved 2 of 5 bar code is a numeric only bar code. All I 2 of 5 bar codes must contain an even number of characters and are bracketed by a stop and start character. The character is the colon (:). The letter F is used to select interleaved two of five bar code. Note: this bar code can be printed in either a 2:1 or 3:1 wide to narrow ratio. The following are 2:1 ratio commands (the default value).

A typical picket fence bar code would be sent as follows:
"<RC0,10><X2><FP3>:123456:"

The above prints a 3 unit high (24 dots) bar code starting at row 0 column 10. The bar code will extend down and to the right from the initial row and column position.
A typical ladder orientation bar code with interpretation and a default width of 4 would be sent as follows.
"<RC0,70><FL>:123456:"

An expanded (doubled) version of the above bar code would be as follows:
"<RC0,70><FL><X2>:123456:"

A 3:1 ratio of the above expanded (doubled) version would be as follows:
"<RC0,70><FXL><X2>:123456:"

[Default]

[Reference] <FP , <Fp , <fP , <fp

[Example]

<FP , <Fp , <fP , <fp

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print portrait ITF barcode**
[Format] ASCII <FP
[Range]
[Description] This command prints an ITF barcode type in portrait mode.
[Notes] Interleaved 2 of 5 bar code is a numeric only bar code. All I 2 of 5 bar codes must contain an even number of characters and are bracketed by a stop and start character. The character is the colon (:). The letter F is used to select interleaved two of five bar code. Note: this bar code can be printed in either a 2:1 or 3:1 wide to narrow ratio. The following are 2:1 ratio commands (the default value).

A typical picket fence bar code would be sent as follows:
"<RC0,10><X2><FP3>:123456:"

The above prints a 3 unit high (24 dots) bar code starting at row 0 column 10. The bar code will extend down and to the right from the initial row and column position.
A typical ladder orientation bar code with interpretation and a default width of 4 would be sent as follows.
"<RC0,70><FL>:123456:"

An expanded (doubled) version of the above bar code would be as follows:
"<RC0,70><FL><X2>:123456:"

A 3:1 ratio of the above expanded (doubled) version would be as follows:
"<RC0,70><FXL><X2>:123456:"

[[Default]
[Reference] <FL , <Fl , <fL , <fl
[Example]

<g #> ASCII high byte1, ASCII low byte1 ... last byte

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Ascii graphics command**
[Format] ASCII <g #> ASCII high byte1, ASCII low byte1 ... last byte
[Range]
[Description] This command uses ASCII characters instead of straight decimal representations of the data. This command should only be used with computers that cannot send non-ASCII characters to the printer as the number of bytes sent in ASCII graphics mode is twice that sent in normal mode.
[Notes] The # following the small g command must be an even number equal to the total number of high and low bytes sent.
[Default]
[Reference]
[Example] For example, a byte value of 3F hex would be sent as an ASCII byte of 3 (33H) and an ASCII byte of F (46H).

❶ <G> byte1,byte2,byte3,byte4,byte5,byte6,byte7 ❷ <G #> byte1, byte2...byte#

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Graphics command**
[Format] ❶ ASCII <G> byte1,byte2,byte3,byte4,byte5,byte6,byte7
❷ ASCII <G #> byte1,byte2...byte#
[Range]
[Description] This command can be sent with or without a number. The number tells the printer how many graphics bytes are coming next. If no number is sent, the printer uses the default value of 7. Therefore, exactly 7 graphics bytes must follow a command of just <G>.
The bytes are sent one after the other without any intervening commas.
[Notes]
[Default]
[Reference]
[Example]

<h>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print and cut command**
[Format] ASCII <h>
[Range]
[Description] This command is also used in place of a normal print command (<p> or FF).
The purpose of this command is to allow the user to update a number of fields on the ticket without re-transmitting all of the data. This feature is particularly useful when logos, graphics or large blocks of data are retained from ticket to ticket.
While this feature can greatly reduce the amount of data sent from the computer to the printer, it should be noted that updating large blocks of data may result in an overall decrease in printer throughput.

In normal operation, the printer automatically clears its ticket image buffer after the ticket is printed. When this command is used, the printer will hold the print image in memory. The image will remain intact until either a ticket is printed with a normal print command (<p> or FF) or a clear buffer command, <CB>, is issued.
This command also places the printer in replace mode. This means that all text sent for succeeding tickets will replace the text located at that same position on the original 'held' ticket. In this manner, you can send a main ticket and then update only select fields on the following tickets. All the tickets must end with an <h> command if you want to continue in this mode. The printer will cut the ticket after printing if it has a cutter. The last ticket before a new main ticket is to be printed should end with a normal print command.

Please note that the "<h>" feature is intended to be used for the replacement of similar fields of data. The use of the "<h>" command to overwrite a field of large characters with small characters will cause pieces of the original data to remain on the ticket making the new field difficult to read. Similarly, changing the font size or font type will also create undesirable results.
Another factor to consider is that, although new data is placed on the ticket on a bit by bit basis, "<h>" mode data is loaded on a byte by byte basis. This means that the data is replaced in multiples of 8 bits. For example, a font6 character is 52 dots high but the actual amount of replaced data will be 56 dots (next multiple of 8). Therefore, in this case, any characters located 4 or less dots below the replaced field will be erased. To avoid erasing adjacent data accidentally, you should avoid printing any characters within 8 dots below the field that is to be replaced. The exact number varies with font size, height and width so trial and error is the best approach if you are losing parts of characters when printing in the replace mode.
[Notes] This command is not currently supported when using soft fonts. This command is not applicable to MagMini and Dual printers.

[Default]
[Reference]
[Example]

<HW #, #>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Height/width command**
[Format] ASCII <HW #, #>
[Range]
[Description] This command sets up the height and width of the character. Characters are limited in their expansion only by the size of the ticket. Be careful not to build characters into the ones below them. Once the height and width have been changed from normal, you must send a <HW1,1> to return to normal size.
[Notes] HW is capped at a maximum of 16 when using soft fonts.
[Default]
[Reference]
[Example]

<HX c>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Draw horizontal line**
[Format] ASCII <HX c>
[Range]
[Description] This command draws a horizontal line (one dot wide) "c" dots long. We recommend that a row/column command is used immediately following this command to prevent any confusion regarding the location of the cursor following this command.
[Notes]
[Default]
[Reference]
[Example]

<ID #>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Assign ID number to fonts and logos**
[Format] ASCII <ID #>
[Range]
[Description] The command is used to assign an ID number to soft fonts and logos. To preset the next logo to logo 3, send <ID3> prior to the logo information. To replace logo 3, send <ID3> before downloading the next logo. The <ID#> command is used in the same manner for both logos and soft fonts.
[Notes] The printer keeps track of the file ID's as they are deleted. The ID assigned to the next file downloaded will always be one greater than the highest remaining ID left in the printer. If all files are deleted, then the ID number starts back at one.
[Default]
[Reference] <DF#>
[Example] If the printer has soft font1 , soft font2 , soft font3, and logo1 downloaded and you wanted to delete soft font2 you would send the following string: <ID2><DF7>. The next soft font downloaded would then be soft font4.

<LD #>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print downloadable logo command**
[Format] ASCII <LD #>
[Range]
[Description] This command causes the Ghostwriter to print one of its customer downloaded logos on the ticket.
[Notes] This command must be preceded by a starting point command (<SP#,#>).
[Default]
[Reference] <SP#,#>
[Example]

<LM>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set landscape printing mode**
[Format] ASCII <LM>
[Range]
[Description] Select the landscape format in printing mode.
[Notes]
[Default]
[Reference]
[Example]

<LO #>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print resident logo command**
[Format] ASCII <LO #>
[Range]
[Description] This command causes the Ghostwriter to print any one of its factory pre-loaded logos on the ticket.
[Notes] This command must be preceded by a starting point command (<SP#,#>).
[Default]
[Reference] <SP#,#>
[Example]

<LT #>

Devices:	STIMA-CLS
	STIMA-CMP
[Name]	**Line thickness command**
[Format]	ASCII <LT #>
[Range]	
[Description]	This command is used in conjunction with the line and box drawing commands. It allows the user to change the thickness of the lines being drawn from their normal default thickness of one dot. The # in the command represents the number of dots in the thickness of the line. This command must be sent immediately preceding the line or box command it is to work with. All lines revert back to the default size of one after being drawn. Therefore, if you want to draw several boxes with different line thicknesses you must send a separate line thickness command before each box drawing command. Note that the thickness of a box grows towards the center of the box. A vertical line grows towards the right and a horizontal line grows towards the bottom of a ticket. The only restriction on the thickness of a box drawing line is that it may not be more than 1/2 the size of smallest box dimension. For example, a 10 x 15 box can have a maximum line thickness of 5 (note: this would produce a solid black box).
[Notes]	
[Default]	
[Reference]	
[Example]	The following sequence <LT4><BX10,10> would produce a box 10 dots long by 10 dots wide with a line thickness of 4 dots.

<n>

Devices:	STIMA-CLS
	STIMA-CMP
[Name]	**Transparent mode off command**
[Format]	ASCII <n>
[Range]	
[Description]	This command terminates the printer's transparent mode and returns it to normal operation.
[Notes]	Transparent mode remains active until receipt of the full command string. In other words, the command string <n> will be transmitted over the CRT #1 port.
[Default]	
[Reference]	<t>
[Example]	

<NL , <Nl , <nL , <nl

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print landscape CODE39 barcode**

[Format] ASCII <NL

[Range]

[Description] This command prints a CODE39 barcode type in landscape mode.

[Notes] Code 39 is an alphanumeric bar code. The Code 39 character set consists of bar code symbols representing characters 0-9, A-Z, the space character and the following symbols: - , . , $, / , + %. All code 39 data must be bracketed by an asterik (*) on both sides. The letter N is used to select three of nine bar code. Note: this bar code can be printed in either a 2:1 or 3:1 wide to narrow ratio. The following are 2:1 ratio commands (the default value).

A typical ladder code 39 bar code would be sent as follows:
"<RC0,70><NL3>*CODE39*"

This would result in a 3 unit wide bar code starting on row 0, column 70. No interpretation is printed. A typical picket fence code 39 would be as follows:
"<RC0,10><NP5><BI>*CODE39*"

This code starts at row 0, column 10. The interpretation is included.
To print the above bar code in a 3:1 ratio you would send the following:
"<RC0,10><NXP5><BI>*CODE39*"

[Default]

[Reference] <NP , <Np , <nP , <np

[Example]

<NP , <Np , <nP , <np

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print portrait CODE39 barcode**
[Format] ASCII <NP
[Range]
[Description] This command prints a CODE39 barcode type in portrait mode.
[Notes] Code 39 is an alphanumeric bar code. The Code 39 character set consists of bar code symbols representing characters 0-9, A-Z, the space character and the following symbols: - , . , $, / , + %. All code 39 data must be bracketed by an asterik (*) on both sides. The letter N is used to select three of nine bar code. Note: this bar code can be printed in either a 2:1 or 3:1 wide to narrow ratio. The following are 2:1 ratio commands (the default value).

A typical ladder code 39 bar code would be sent as follows:
"<RC0,70><NL3>*CODE39*"

This would result in a 3 unit wide bar code starting on row 0, column 70. No interpretation is printed. A typical picket fence code 39 would be as follows:
"<RC0,10><NP5><BI>*CODE39*"

This code starts at row 0, column 10. The interpretation is included.
To print the above bar code in a 3:1 ratio you would send the following:
"<RC0,10><NXP5><BI>*CODE39*"

[Default]
[Reference] <NL , <Nl , <nL , <nl
[Example]

<NR>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Rotation command**
[Format] ASCII <NR>
[Range]
[Description] Restore the text in horizontal, without rotation.
[Notes]
[Default]
[Reference] <RL>, <RR>, <RU>
[Example]

<OL , <Ol , <oL , <ol

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print landscape CODE128 barcode**
[Format] ASCII <OL
[Range]
[Description] This command prints a CODE128 barcode type in landscape mode.
[Notes] Code 128 is an alphanumeric bar code. All code 128 data must be bracketed by a caret (^) on both sides. The letter O is used to select one twenty eight bar code. Shift characters and check digits are automatically calculated by the Ghostwriter. The printer will switch between start codes 'B' and 'C' where appropriate.
A typical ladder code 128 bar code would be sent as follows:
"<RC0,70><OL3>^CODE128^"

This would result in a 3 unit wide bar code starting on row 0, column 70. No interpretation is printed. A typical expanded picket fence code 128 would be as follows:
"<RC0,10><X2><OP5><BI>^CODE128^"

This code starts at row 0, column 10. The interpretation is included.
[Default]
[Reference] <OP, <Op, <oP , <op
[Example]

<OP , <Op ,<oP , <op

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print portrait CODE128 barcode**
[Format] ASCII <OP
[Range]
[Description] This command prints a CODE128 barcode type in portrait mode.
[Notes] Code 128 is an alphanumeric bar code. All code 128 data must be bracketed by a caret (^) on both sides. The letter O is used to select one twenty eight bar code. Shift characters and check digits are automatically calculated by the Ghostwriter. The printer will switch between start codes 'B' and 'C' where appropriate.
A typical ladder code 128 bar code would be sent as follows:
"<RC0,70><OL3>^CODE128^"

This would result in a 3 unit wide bar code starting on row 0, column 70. No interpretation is printed. A typical expanded picket fence code 128 would be as follows:
"<RC0,10><X2><OP5><BI>^CODE128^"

This code starts at row 0, column 10. The interpretation is included.
[Default]
[Reference] <OL , <Ol , <oL , <ol
[Example]

<p>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print and cut ticket**
[Format] ASCII <p>
[Range]
[Description] This is the normal print command. The printer will cut the ticket after printing if it has a cutter.
[Notes]
[Default]
[Reference]
[Example]

<P>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print and cut ticket in reverse**
[Format] ASCII <P>
[Range]
[Description] The printer will cut the ticket after printing (in reverse) if it has a cutter.
[Notes]
[Default]
[Reference]
[Example]

<PC>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print ticket count command**
[Format] ASCII <PC>
[Range]
[Description] The printer keeps track of each ticket that it prints. This seven digit number is kept in the printer as the user ticket count. This number is independent of both re-settable and permanent ticket counts. Up to two ticket counts (both the same count) can be printed in any font size, in any rotation, anywhere on the ticket.
To have this number printed on the ticket, you must send the printer a <PC> command. This command can be placed anywhere in the ticket data. However, it will use the location of the ticket pointer when the command is sent in determining where to place the count. Therefore, it is recommended to send a normal row/column command before the <PC> command. The reason for being able to print two counts is to print a count on the main ticket and the same count on a stub.
[Notes]
[Default]
[Reference]
[Example] To change the count, see the load ticket count instruction below. Note that the height/width command has no effect with this command and that only two counts can be printed per ticket. A separate <PC> command must be sent for each count you want printed.
For example, to print two rotated-right font3 counts, 100 columns apart, you might send the following:
<F3><RR><RC10,100><PC>
<F3><RR><RC10,200><PC>

<pcx>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Pcx file being sent command**
[Format] ASCII <pcx>
[Range]
[Description] This command notifies the printer that a PCX image file is being sent to the printer. This command must be sent as part of a command sequence like <SP#,#><pcx><G#>pcx bytes.
[Notes]
[Default]
[Reference]
[Example]

<PF>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Permanent file command**
[Format] ASCII <PF>
[Range]
[Description] This command set the file storage mode on permanent mode.
[Notes]
[Default]
[Reference] <TF>
[Example]

<pl>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Permanent print length command**
[Format] ASCII <pl>
[Range]
[Description] This command was changed to allow both ticket paths to have a permanent printing length. This command only works on the current ticket path. This means that if a change is required on the other ticket path (or if both ticket paths need to be changed), a <P1> or <P2> command needs to be issued before the print length command to determine which path will be affected. The <pl> command will change the printing length of the ticket permanently by storing the new value in nonvolatile memory.
[Notes]
[Default]
[Reference] <PL>
[Example]

<PL>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Temporary print length command**
[Format] ASCII <PL>
[Range]
[Description] The changes to this command are the same as the <pl> command, with the exception that the new values are not permanently stored. This routine only effects the program variables and not the permanent variables. If the printer power is turned off, the printer will re-initialize the print length to the previous values determined during initialization. The new print length becomes effective immediately.
[Notes]
[Default]
[Reference] <dpl>, <pl>
[Example]

<PM>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set portrait printing mode**
[Format] ASCII <PM>
[Range]
[Description] Select the portrait format in printing mode.
[Notes]
[Default]
[Reference]
[Example]

<PP>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Purge printer of remaining tickets command**
[Format] ASCII <PP>
[Range]
[Description] Normally, when the printer runs out of tickets, it will save whatever ticket data it has not yet printed. Then, when new stock has been loaded, it will continue where it left off. However, if this command has been sent to the printer, it will not print the remaining tickets. In this mode, when the printer runs out of tickets it will purge all remaining ticket information. It will also reset the ticket count to zero. Therefore, in this mode, the printer acts as if it has been reset after running out of tickets.
This command should be sent at the beginning of the day and not after the printer has run out of tickets. This command remains in effect until power off.
[Notes]
[Default]
[Reference] <ppd>, <ppd>
[Example]

<ppd>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Purge printer of remaining tickets command**
[Format] ASCII <ppd>
[Range]
[Description] Normally, when the printer runs out of tickets, it will save whatever ticket data it has not yet printed. Then, when new stock has been loaded, it will continue where it left off. However, if this command has been sent to the printer, it will not print the remaining tickets. In this mode, when the printer runs out of tickets it will purge all remaining ticket information. It will also reset the ticket count to zero. Therefore, in this mode, the printer acts as if it has been reset after running out of tickets. This command should be sent at the beginning of the day and not after the printer has run out of tickets. This command remains in effect until power off. The lower case purge printer enable command <ppe> is permanent and allows the printer to be configured for purge mode at power on. The printer will remain in this mode until a purge printer disable command <ppd> is issued.
[Notes]
[Default]
[Reference] <PP>, <ppe>
[Example]

<ppe>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Purge printer of remaining tickets command**
[Format] ASCII <ppe>
[Range]
[Description] Normally, when the printer runs out of tickets, it will save whatever ticket data it has not yet printed. Then, when new stock has been loaded, it will continue where it left off. However, if this command has been sent to the printer, it will not print the remaining tickets. In this mode, when the printer runs out of tickets it will purge all remaining ticket information. It will also reset the ticket count to zero. Therefore, in this mode, the printer acts as if it has been reset after running out of tickets. This command should be sent at the beginning of the day and not after the printer has run out of tickets. This command remains in effect until power off. The lower case purge printer enable command <ppe> is permanent and allows the printer to be configured for purge mode at power on. The printer will remain in this mode until a purge printer disable command <ppd> is issued.
[Notes]
[Default]
[Reference] <PP>, <ppd>
[Example]

<q>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print ticket**
[Format] ASCII <q>
[Range]
[Description] This is the normal print/no cut command. The printer will not cut the ticket after printing even if it has a cutter.
[Notes]
[Default]
[Reference]
[Example]

<Q>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print ticket in reverse**
[Format] ASCII <Q>
[Range]
[Description] The printer will not cut the ticket after printing (in reverse) even if it has a cutter.
[Notes]
[Default]
[Reference]
[Example]

<r>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print command**
[Format] ASCII <r>
[Range]
[Description] This command is also used in place of a normal print command (<p> or FF).
The purpose of this command is to allow the user to update a number of fields on the ticket without re-transmitting all of the data. This feature is particularly useful when logos, graphics or large blocks of data are retained from ticket to ticket.
While this feature can greatly reduce the amount of data sent from the computer to the printer, it should be noted that updating large blocks of data may result in an overall decrease in printer throughput.

In normal operation, the printer automatically clears its ticket image buffer after the ticket is printed. When this command is used, the printer will hold the print image in memory. The image will remain intact until either a ticket is printed with a normal print command (<p> or FF) or a clear buffer command, <CB>, is issued.
This command also places the printer in replace mode. This means that all text sent for succeeding tickets will replace the text located at that same position on the original 'held' ticket. In this manner, you can send a main ticket and then update only select fields on the following tickets. All the tickets must end with an <r> command if you want to continue in this mode. The printer will cut the ticket after printing if it has a cutter. The last ticket before a new main ticket is to be printed should end with a normal print command.

Please note that the "<r>" feature is intended to be used for the replacement of similar fields of data. The use of the "<r>" command to overwrite a field of large characters with small characters will cause pieces of the original data to remain on the ticket making the new field difficult to read. Similarly, changing the font size or font type will also create undesirable results.
Another factor to consider is that, although new data is placed on the ticket on a bit by bit basis, "<r>" mode data is loaded on a byte by byte basis. This means that the data is replaced in multiples of 8 bits. For example, a font6 character is 52 dots high but the actual amount of replaced data will be 56 dots (next multiple of 8). Therefore, in this case, any characters located 4 or less dots below the replaced field will be erased. To avoid erasing adjacent data accidentally, you should avoid printing any characters within 8 dots below the field that is to be replaced. The exact number varies with font size, height and width so trial and error is the best approach if you are losing parts of characters when printing in the replace mode.

In cut mode no ticket is cut until a normal print command (<p> or FF) is sent.

[Notes] This command is not currently supported when using soft fonts. This command is not applicable to MagMini and Dual Devices.

[Default]
[Reference]
[Example]

<RC R,C>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Position the cursor**
[Format] ASCII <RC R,C>
[Range]
[Description] This command positions the character at the row (R) and column (C) sent. There must be a comma sent between the row and column values. The character will start there and build according to its rotation.
[Notes] The values are ASCII characters. This means that the 10 is sent as an ASCII 1 followed by an ASCII 0 not as a byte with a value of 10.
[Default]
[Reference]
[Example]

<RE #>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Repeat command**
[Format] ASCII <RE #>
[Range]
[Description] The repeat command allows the user to print multiple copies without retransmitting the ticket. The number # represents the number of tickets to be printed in addition to the first ticket. The repeat command can be sent anywhere in the data stream prior to the print command.
[Notes]
[Default]
[Reference]
[Example]

<RL>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Rotation command**
[Format] ASCII <RL>
[Range]
[Description] Rotate text 90° counterclockwise.
[Notes]
[Default]
[Reference] <NR>, <RR>, <RU>
[Example]

<RR>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Rotation command**
[Format] ASCII <RR>
[Range]
[Description] Rotate text 90° clockwise.
[Notes]
[Default]
[Reference] <NR>, <RL>, <RU>
[Example]

<rtc #>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Reset ticket count**
[Format] ASCII <rtc>
[Range]
[Description] The printer maintains separate re-settable ticket counts for each path. This command resets the re-settable ticket count on the printer.
The # field represents the path number. The re-settable ticket count is printed on the test ticket preceded by RTC.
This count is not affected by turning off the printer.
[Notes]
[Default]
[Reference]
[Example]

<RTF #,#>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **TrueType font selection command**
[Format] ASCII <RTF #,#>
[Range]
[Description] Once downloaded to the printer TrueType fonts can be selected by referencing their file ID number. User downloaded fonts are selected with the <RTF#,#> command.
The first command parameter specifies the font's ID number and the second parameter specifies the point size to use when scaling it for use.

[Notes]
[Default]
[Reference]
[Example]

<RU>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Rotation command**
[Format] ASCII <RU>
[Range]
[Description] Rotate text 180°.
[Notes]
[Default]
[Reference] <NR>, <RL>, <RR>
[Example]

<RX

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set X position**
[Format] ASCII <RX
[Range]
[Description] Set the printing position in graphic mode
[Notes]
[Default]
[Reference]
[Example]

<RY

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Set Y position**
[Format] ASCII <RY
[Range]
[Description] Set the printing position in graphic mode
[Notes]
[Default]
[Reference]
[Example]

❶ <s #> ❷ <S #>

Devices: STIMA-CLS
STIMA-CMP

[Name] **Status command**
[Format] ❶ ASCII <s #>
❷ ASCII <S #>
[Range] ❶ # = 3, 5, 6, 8
❷ # = 1, 2, 3, 5, 6, 7, 8, 9
[Description] According to value of # , the functions of the command are listed in the following table:

#	function
1	Status request
2	Prom type and ticket count status request
3	Delayed status
5	No status
6	Ascii status
7	Download bytes available status
8	Partial ascii status
9	Dirty bytes total status

<S1> STATUS REQUEST
The printer will respond with a one byte status message following the receipt of this command.

<S2> PROM TYPE AND TICKET COUNT STATUS REQUEST
The printer will respond with a seven digit ticket count followed by the software level of the printer. A typical response will be as indicated below:
0004616 PROM = FGL44A

<S3> or <s3> DELAYED STATUS REQUEST (end of ticket run status)
Normally, the printer sends an ack (6) status byte after successfully printing a ticket. Some customers may prefer to receive this ack only after the last ticket in a run is printed. This command will perform that function. It can be sent on the first ticket or every ticket of a run. When the printer is finished with the last ticket, it will issue the acknowledgment.
Note: This command remains in effect only for a run of tickets. It must be re-sent with the start of a new run if you desire this status.

<S5> or <s5> NO STATUS
This feature disables the transmission of all status information, except for x-on/off information. This command remains in effect until power off.

<S6> or <s6> ASCII STATUS
This feature is for customers whose systems can't handle non-ASCII characters or do not pass on the xon/xoff values. All status information, including the xon/xoff, will have 30h added to them to convert them to an ASCII value. (Values over 20H are unaffected by this command.) This command remains in effect until power off.

<S7> DOWNLOAD SPACE AVAILABLE STATUS
This feature enables the user to find out how many free bytes are left in the download memory area of the printer. Usually, there are 128k bytes of space available. After downloading some data to the printer, you can use this command to determine how much space is left. This status is sent as an 8 digit hexadecimal count.
For example, if 100k bytes are available the count will be 00019000. On the fgl44 printer, the <S7> command can now be used to keep track of both the RAM and flash download space. If you are in temporary mode, the <S7> command will return the amount of RAM space available. If you are in permanent mode, it will display the amount of flash space available.

Note: deleting a file from flash does not free up the memory for later use unless the flash is empty. The deleted file space is marked as 'dirty'. See <S9> command below.

<S8> or <s8> PARTIAL ASCII STATUS
This feature is for customers whose systems can't handle non-ASCII characters but need valid xon/xoff values. All status information, except for a valid xon/xoff, will have 30h added to them to convert them to an ASCII value. This command remains in effect until power off.
Note: xon/xoff status sent in response to an <S1> command will have the 30H added but xon/xoff sent for handshaking will not. (Values over 20H are unaffected by this command.)

<S9> DIRTY BYTE TOTAL STATUS
This feature enables the user to find out how many dirty bytes there are in the download space of the flash. This status is sent as an 8 digit hexadecimal count. When a file is marked as deleted, its flash space cannot be reused until a reclaim occurs. This space is considered 'dirty' space. You can use the <DF9> command to reclaim this space (see the downloading file supplement for more details).

[Notes]
[Default]
[Reference]
[Example]

<SF>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Print downloadable font command**
[Format] ASCII <SF>
[Range]
[Description] Use this font command to specify the desired font.
[Notes]
[Default]
[Reference] <PF>
[Example]

<SP #,#>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Starting point command**
[Format] ASCII <SP #,#>
[Range]
[Description] This command is used only when printing logos. It is used to assign the starting location of the logo in the same way that the <RC#,#> command is used to assign the starting position of normal alphanumeric characters.
[Notes]
[Default]
[Reference] <LD#>, <LO#>
[Example]

<SVEL>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Change printer emulation to SVELTA**
[Format] ASCII <SVEL>
[Range]
[Description] Set the SVELTA emulation.
[Notes]
[Default]
[Reference]
[Example]

<t>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Transparent mode on command**
[Format] ASCII <t>
[Range]
[Description] All data sent after receipt of this command will be transmitted out of the CRT #1 port without being processed by the printer. This mode will continue until receipt of the transparent mode off <n> command.
[Notes]
[Default]
[Reference] <n>
[Example]

<TC 1234567>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Load ticket count command**
[Format] ASCII <TC 1234567>
[Range]
[Description] This command allows the user to preload the printer's seven digit ticket count. It must contain all seven digits - a count of 5 would be sent as <TC0000005>. This number will be the count for the ticket presently being sent. The next ticket will be one higher.
When using this command with a repeat command and a print count command you can print many tickets at full speed with the only difference being the ticket count.
[Notes] the user ticket count is automatically reset to 0 each time the printer is turned off.
[Default]
[Reference]
[Example]

<TF>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Temporary file command**
[Format] ASCII <TF>
[Range]
[Description] This command set the file storage mode on temporary mode.
[Notes]
[Default]
[Reference] <PF>
[Example]

<tl #>

Devices:	STIMA-CLS
	STIMA-CMP
[Name]	**Permanent ticket length command**
[Format]	ASCII <tl #>
[Range]	
[Description]	This command should only be used if the ticket length is greater than the printing. This command will cause the printer to permanently store the ticket length value in the Flash. The # sent is equal to the dot column size of the ticket. If no number is sent, the ticket length determined during initialization will be stored. Once a value has been stored, the ticket measuring function of the printer, after power on, is disabled. Normally, the ticket length and the printing length are the same. However, when using short die cut labels (under 1.5") it is often desirable to have the print length smaller than the ticket length. Label stocks usually have a clear (non-printing) area between labels so that the ticket (label) size is larger than the printing size. In this case, the length of the gap between labels is typically used as the difference between the print length and the ticket length.
[Notes]	The <tl#> command must be sent before <pl#> command.
[Default]	
[Reference]	<pl#>
[Example]	

<ttf #>

Devices:	STIMA-CLS
	STIMA-CMP
[Name]	**TrueType download command**
[Format]	ASCII <ttf #>
[Range]	
[Description]	The TrueType font files can be downloaded manually or through a customer's application using the appropriate command. The <ttf#> command is issued to alert the printer that a TrueType file follows; the # sign is replaced with the TrueType fonts file size as reported by the operating system. The download command is then immediately followed by a binary copy of the font file which the printer will save in memory. Unless a file ID number was previously assigned (see <ID#> command) the printer will automatically assign the next available ID to the TrueType font. The file ID is very important since it will be used for all future references to the font.
[Notes]	
[Default]	
[Reference]	
[Example]	The command sequence <ID1><ttf117028> represents a "binary file data" The <ID1> command is optional as explained above, the <ttf117028> provides the TrueType font file size and is immediately followed by the data from the font file.

<TTF #,#>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **TrueType font selection command**
[Format] ASCII <TTF #,#>
[Range]
[Description] Once downloaded to the printer TrueType fonts can be selected by referencing their file ID number. This ID was assigned during the download process. User downloaded fonts are selected with the <TTF#,#> command.
The first command parameter specifies the font's ID number and the second parameter specifies the point size to use when scaling it for use.

[Notes]
[Default]
[Reference]
[Example] The command sequence <TTF1,12><RC100,100> represents a TrueType font
The first parameter 1 is the file ID and the second parameter 12 is the font's point size, if a point size is not specified the last point size requested or the printer's default value is used.

<VX r>

Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Draw vertical line command**
[Format] ASCII <VX r>
[Range]
[Description] This command draws a vertical line (one dot wide) "r" dots long. We recommend that a row/column command is used immediately following this command to prevent any confusion regarding the location of the cursor following this command.

[Notes]
[Default]
[Reference]
[Example]

<X #>	
Devices:	STIMA-CLS
	STIMA-CMP

[Name] **Bar code expanded command**
[Format] ASCII <X #
[Range] 2 ≤ # ≤ 9
[Description] This command allows you to expand the width of a bar code bar (normally based on a one dot unit). The number following the X will be the new dot unit bar size.
All bar codes can be expanded from their normal bar width of one dot by using this command. The expanded command allows you to double, triple, etc., the length of the bar code. It does not affect the height (size) of the bar code.
Normally, a setting of 2 dot wide bars is all that is needed for clear, readable bar codes.

[Notes] Normally, on a 200 dpi head you should at least use the <X2> command, <X3> for 300 dpi.
[Default]
[Reference]
[Example]

5 COMMANDS INDEX

ESC/POS™ EMULATION

SVELTA EMULATION

Part Number : DOMC-es00175-0001E Rev. 1.00

STIMARE

CUSTOM-Powered

Stimare Limited
Units 5 & 6 Ballywaltrin Business Park, Boghall Road, Bray, Co. Wicklow Ireland
Email: info@stimare.net www.stimare.net

Stimare UK
4 Bramber Court, Bramber Road, London, W149PW
Email: support@stimare.net

Stimare USA
3104 N Arlington Heights Rd, Arlington Heights, IL 60004, USA
Email: support@stimare.net

Company Details
Registered in Ireland no. 453813
Registered for VAT IE 9682843O