Honeywell

EZ-Print Command Reference

User Guide

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CHAPTER

1 EZ-PRINT COMMAND REFERENCE

This command reference includes general information and command and parameter information to write programs for your Honeywell RP2f or RP4f Mobile Printer.

About the Print Modes, Graphics, and Fonts

The printers can operate in two modes:

Line Print mode (default)

Easy Print mode

About Line Print Mode

Line Print mode is the simplest method of printing. Each line to be printed is sent to the printer as a sequence of single bytes. (Some Asian character sets require two bytes for each character.) The printer accepts characters and begins to print when a Carriage Return (0x0D) or Line Feed (0x0A) is received, and then all characters received to that point are printed on a single line. A series of ESC (Escape) code sequences can be sent to the printer to alter the look of the characters (e.g., to make them double wide, change the font, change other aspects of the appearance of the printout). You can also have the printer realign if you are using stocks with a "Q" or alignment mark. Text and graphics do not need to be stored in the printer.

You can use Line Print mode commands to change the text height, width, font type, and international character type.

Example

Receipt

Item #1 - yellow version $1.00
Item #2 - blue version $1.00
Item #3 - red version $1.00

Total: $3.00

Command Strings for Text

1. <--wm
2. RECEIPT
3. <--w"
4. Item #1 - yellow version $1.00
5. Item #2 - blue version $1.00
6. Item #3 - red version $1.00
7. <--wm
8. TOTAL: $3.00
9. <--EZ

Line	Command String	Description
1	<--wm	Lines 1 and 2 print "RECEIPT" in the monospace 821 WGL4 24 font. The "<--" character is how the ESC character appears on your screen.
2	RECEIPT	
3	<--w"	Print item #1 through item #3 information in the monospace 821 WGL4 16 font.
4	Item #1 - yellow version $1.00	
5	Item #2 - blue version $1.00	
6	Item #3 - red version $1.00	
7		Prints "TOTAL: $3.00" in the monospace 821 WGL4 24 font.
8		
9		Go to Easy Print mode.

About Easy Print Mode

Use Easy Print mode commands to design custom receipts, tickets, or reports. You can use borders, lines, stored graphics, logos, and text in any orientation.

In Easy Print mode, graphics are stored in flash memory, so your computer only needs to send variable data to the printer. Because you do not need to download graphics each time you print, less time is required to communicate with the printer, which increases print speed.

Use Easy Print mode for graphics that you print on a regular basis, such as a company logo.

Easy Print mode commands use this format:

ESC EZ {Command:*Information*}

where:

ESC EZ is the Go to Easy Print Mode command.

Information is the set of instructions the printer needs to carry out a command. Some commands do not require Information, while other commands may require complex Information. Also, some commands have global options that modify the entire command.

Example

Total:$13.15

01-01-05

Command Strings for Text

1. <--EZ
2. {PRINT:
3. @10,30:PE203,HMULT2,VMULT2|Total:$13.15|
4. @60,30:PE203,HMULT2,VMULT2|01-01-05|
5. }

Line	Command String	Description
1	<--EZ	Sets the printer to Easy Print mode. The "<--" character represents ESC.
2	{PRINT	Begins the print request.
3	@10,30:PE203,HMULT2,VMULT2|Total:$13.15|	Prints "Total:$13.15" in font PE203 in twice its normal size.
4	@60,30:PE203,HMULT2,VMULT2|01-01-05|	Prints "01-01-05" in font PE203 in twice its normal size.
5	}	Ends the print request.

How to Download Graphics

Use PrintSet to download graphics to your printer. For help with PrintSet, see your printer user manual.

PrintSet follows this process to download graphics to your printer:

1. PrintSet sends the <ESC>{_CLC:HCD} command to EZ Print.

2. EZ Print prompts the Host Configuration Daemon to interact with PrintSet.

3. ESC/P assigns the image name and ID to the downloadable image to create the image alias file name.

4. PrintSet uploads the alias file from the printer.

5. PrintSet updates the alias file to the format, "ESCPIMG.ALS".

6. PrintSet sends the updated file to the printer.

7. The printer receives, interprets, and stores the updated file.

About the Image Alias File Name

The image alias file name describes the new image name that ESC/P interprets. The image alias file is named "ESCPIMG.ALS" and is interpreted as:

<ID>*x*<NAME>*xxxxx*<IMAGE>*xxxxxx*

where:

<ID>*x* is a 1-byte name

<NAME>*xxxxx* is a 5-byte name

<IMAGE>*xxxxxx* is the image name

How to Download Fonts

With firmware version MR10.19.010053 or higher, users can directly download .FON /.CPF font files from the printer web page, FTP, USB drive, PrintSet 5 version 5.8.1.5, or some other method, such as commands. No converters are required for .FON font files.

If the file is downloaded by FTP, copy the file to the **\home\user\fonts** folder.

Note: For Autosense/EZ Print language, you do not need to restart the printer after loading the font files. If you are using FP/DP language, you will need to restart the printer. (You will need to do this if you are printing EZ Print.)

Firmware version MR10.19.010053 or higher provides native support that converts CPF/SFP/FON files to bitmap font (.bmf) format along with a file called FONTMAP, which is used to map the fonts.

FONTMAP is a tab or comma-delimited file that is created automatically as fonts are uploaded. The file format is:

FontID \t Filename \t Internal Name \t Font Name used in script \n

CHAPTER 2

EZ-PRINT COMMANDS

EZ-Print can process these types of commands:

- Line Print Mode
- Easy Print Mode
- Query
- Bluetooth
- Network
- Wireless

EZ-Print cannot process these commands:

- Download Fonts
- Download Graphics
- Erase All Downloaded Fonts
- Retrieve Serial Parameters
- Set Serial Parameters
- Upgrade Firmware

Bluetooth Commands

Use Bluetooth commands to set up the Bluetooth configuration. There are two types of Bluetooth commands you can send from the host: set (S) and query (Q). All Bluetooth commands are preceded by the ESC character and you must send the Commit command ({COMMIT}{LP}) to invoke all of the Bluetooth commands. These commands are paired with replies. All of the replies are exactly the same as the Bluetooth commands except:

- there is no ESC character.
- the parameter sections are replaced by status codes (0 = okay, non-zero = error).

If data follows a command, the letters are followed by a colon. Each configurable parameter has a unique letter, followed by a colon, and then the data for that parameter. Multiple parameters within a command are separated by a semicolon. Multiple fields within data are separated by a comma. You must send all commands

in uppercase letters. Do not include spaces between data unless they are part of the data.

In this example, if you send this command:

ESC{SBT:D:N}{COMMIT}{LP}

You receive this reply:

{SBT:D:0}

This table lists the available Bluetooth commands.

Command	Syntax
Reserve the Printer	ESC{SBT:B}
Retrieve Bluetooth Passcode	ESC{QST:BP}
Retrieve Bluetooth Settings	ESC{QST:BA}
Retrieve Firmware Version (Bluetooth)	ESC{QST:RV}
Retrieve MAC Address	ESC{QST:MA}
Set Authentication (Bluetooth)	ESC{SBT:A}
Set Encryption	ESC{SBT:E}
Set Passcode	ESC{SBT:P}
Set the Connectable State	ESC{SBT:C}
Set the Device Name	ESC{SBT:F}
Set the Discoverable State	ESC{SBT:D}

Reserve the Printer

Enables the printer to pair exclusively with another Bluetooth device. The first Bluetooth device that attempts to establish a relationship with your printer is paired exclusively with the device.

Command

ESC{SBT:B:*x*}ESC EZ{COMMIT}{LP}

where:

x is either Y (Yes) or N (No).

Example

This command enables the printer to be paired exclusively with another Bluetooth device.

ESC{SBT:B:Y}ESC EZ{COMMIT}{LP}

Returns this reply when the printer is successfully enabled:

{SBT:B:0}

Retrieve Bluetooth Passcode

Retrieves the passcode from the printer.

Command

ESC{QST:BP}

Example

ESC{QST:BP}

Reply:

{QST:BP:*x...x*}

where:

x...x is the ASCII string you entered as the passcode.

Retrieve Bluetooth Settings

Retrieves all Bluetooth settings except for the passcode.

Command

ESC{QST:BA}

Example

ESC{QST:BA}ESC

Reply:

{QST:BA:AD:*x...x*;F:*x...x*;SN:*x...x*;PR:*xxx*;CL:*xxxxx*;D:*x*;C:*x*;B:*x*;E:*x*;A:*x*;P:*x*;PWR:*xx*;RV*x...x*}

Command	Setting	Definition
AD	x...x	Returns the MAC address.
F	x...x	Returns the device name.
SN	x...x	Returns the service name.
PR	xxx	Returns the profile support.
CL	xxxxx	Returns the class of device.
D	x	Returns the discoverable state.
C	x	Returns the connectable state.
B	x	Returns the printer reserve status.
E	x	Returns the encryption status.
A	x	Returns the authentication status.

Command	Setting	Definition
P	x	Returns the presence of a passcode.
PWR	xx	Returns the power status.
RV	x...x	Returns the radio firmware version.

Retrieve Firmware Version (Bluetooth)

Returns the firmware version of the installed Bluetooth radio.

Command

ESC{QST:RV}

Example

ESC{QST:RV}

Reply:

{QST:RV:Roving Networks Ver *x.xx*}

Retrieve MAC Address

Returns the Bluetooth MAC address.

Command

ESC{QST:MA}

Example

ESC{QST:MA}

Reply:

{QST:MA:*aa*:*bb*:*cc*:*dd*:*ee*:*ff*}

where:

aa:*bb*:*cc*:*dd*:*ee*:*ff* is the MAC address of the Bluetooth radio.

Set Authentication (Bluetooth)

Enables or disables authentication based on the passcode and pairing. After you enable authentication, you can pair up to 8 devices. To clear the pairing list, change the passkey.

Command

ESC{SBT:A:*x*}ESC EZ{COMMIT}{LP}

where:

x is either Yes (Y) or No (N).

Example

This command enables authentication.

ESC{SBT:A:Y}ESC EZ{COMMIT}{LP}

Returns this reply when authentication is successfully enabled:

{SBT:A:0}

Set Encryption

Enables or disables encryption, which encodes data to prevent others from being able to interpret the information.

Command

ESC{SBT:E:*x*}ESC EZ{COMMIT}{LP}

where:

x is either Y (Yes) or N (No).

Example

This command enables encryption.

ESC{SBT:E:Y}ESC EZ{COMMIT}{LP}

Returns this reply when encryption is successfully enabled:

{SBT:E:0}

Set Passcode

Sets the Bluetooth passcode for the printer.

Command

ESC{SBT:P:*x...x*}ESC EZ{COMMIT}{LP}

where:

x...x is up to 16 printable ASCII code characters.

Example

This command sets the passcode on your printer.

ESC{SBT:P:123456}ESC EZ{COMMIT}{LP}

Returns this reply when the passcode is successfully set:

{SBT:P:0}

Set the Connectable State

Allows other Bluetooth devices to connect to your printer.

Command

ESC{SBT:C:*x*}ESC EZ{COMMIT}{LP}

where:

x is either Y (Yes) or N (No).

Example

This command sets the printer to a state in which other Bluetooth devices can connect to it.

ESC{SBT:C:Y}ESC EZ{COMMIT}{LP}

Returns this reply when the connectable state is successfully set:

{SBT:C:0}

Set the Device Name

Assigns a "friendly" name to your printer.

Command

ESC{SBT:F:*x...x*}ESC EZ{COMMIT}{LP}

where:

x...x is an alphanumeric string up to 16 characters. You can have spaces between the characters.

Example

This command sets the device name to "My PR2".

ESC{SBT:F:My PR2}ESC EZ{COMMIT}{LP}

Returns this reply when the device name is successfully set:

{SBT:F:0}

Set the Discoverable State

Allows other Bluetooth devices to discover your printer during a device discovery.

Command

ESC{SBT:D:*x*}ESC EZ{COMMIT}{LP}

where:

x is either Y (Yes) or N (No).

Example

This command sets the printer to a state in which it is not discoverable.

ESC{SBT:D:N}ESC EZ{COMMIT}{LP}

Returns this reply when the state is successfully set:

{SBT:D:0}

Easy Print Mode Commands

In addition to the Print Command Format, these Easy Print mode commands are available.

Command	Syntax
Ahead Command Format	{AHEAD:*nnn*}
Back Command Format	{BACK:*nnn*}
Commit Command Format	{COMMIT}
Line Print Mode	{LP}
Media Command Format	{MEDIA:MTYP *xxx*,TMAR *xx*,BMAR *xx*,CUTP *xx*}
Print Command Format	{PRINT, *Global Options*:@row,-column:*Name*,*Field Options*|data|}
Self Test Printout	{TP}

Ahead Command Format

Advances the paper by a specified number of dotlines.

Command

{AHEAD:*nnn*}

where:

nnn is a number from 1 to 65000.

Back Command Format

Retracts the paper a specified number of dotlines which enables the printer to print on paper previously fed past the printing mechanism.

Command

{BACK:*nnn*}

where:

nnn is a number from 1 to 65000.

Example

{PRINT,BACK50:@10,30:PB203|Hi world|}

Commit Command Format

Causes settings to take effect only after the printer receives this command. Until the printer receives the {COMMIT} command, the settings are cached into memory where you can change or undo them.

Command

{COMMIT}

You must send the {COMMIT} command to invoke all of the Bluetooth commands.

Example

ESC{SSC:S:115200,8,N,1,H}ESC EZ{COMMIT}{LP}

where:

ESC{SSC:S:115200,8,N,1,H} sets the serial port parameters.

ESC EZ{COMMIT} invokes the serial port parameters command.

{LP} returns the printer to the default Line Print mode.

Line Print Mode

Puts the printer in Line Print Mode.

Command

{LP}

See Also

Line Print Mode Commands

Media Command Format

Sets the printer to fanfold media mode, sets the size in inches, and resets the printer to roll media mode. You can also use this command to set black mark or continuous media mode.

Command

{MEDIA:MTYP xxx,TMAR xx,BMAR xx,CUTP xx}

Field	Reply	Description
MTYP	xxx	Maximum printable length in dots. Options are 000 (returns printer to roll media mode), 600, 800, 1200.
TMAR	xx	Top margin in millimeters.
BMAR	xx	Bottom margin in millimeters.
CUTP	xx	Fine-tunes the media forward a specified numberof dots to position the perforation closer to the tear bar.

MTYP in combination with TMAR and BMAR determines the printable area. If you attempt to print on an area larger than the printable area, the printout is cut off.

Example of Printing Sequence

Step	Command	Description
1	ESC EZ {MEDIA:MTYP1200,TMAR00,BMAR00,CUTP00} {LP} Or, EZ{MEDIA:MTYP 000,TMAR 10,BMAR 15,CUTP 10}{LP}	Sets the printer to black mark media mode. Sets the printer to continuous media mode.
2	Send any printing files or contents to the printer.	
3	ESC EZ{MEDIA:MTYP 000,TMAR 10,BMAR 15,CUTP 10}{LP}	Resets the printer to roll media mode with a top margin of 10 mm and a bottom margin of 15 mm.

Print Command Format

Stops the paper or rotates the image, prints images, and alters the images. You can use a single print command for multiple print lines called a print request.

Command

{PRINT, Global Options:@row,column:Name,Field Options|data|}

Use this table to understand the elements of the print command format:

Element	Description
PRINT,	Use a comma after the PRINT command only if there are global options.
Global Options:	Global Options include BACK, DEMAND, QSTOP, QUANTITY, ROTATION, and STOP. If you use more than one global option, separate each option with a comma.

Element	Description
@row,column:	Specifies the row and column where each line of text or graphics will be printed. The row and column numbers are separated by a comma with no spaces. The range for each row is 1 to 65000. In a typical print request, there may be five or more @row,column: elements for the single word "Print."
Name	Specifies the name of the bar code, font, graphic, or line to print. The Name must be five characters.
Field Options	Field options increase the size of fonts, graphics, or lines. Each field option is separated from the next by a comma.
data	Specifies the text to print. There must be vertical bars at the beginning and the end of the data. If there is no data, you do not need to include vertical bars.

Global Options

Global Options are an element of the Print Command Format. In addition to the Back Command Format, these Global Options are available:

- DEMAND
- QSTOP
- QUANTITY
- ROTATION
- STOP

DEMAND

Allows you to print a specified amount of copies with the printer stopping between each copy. Push the **Feed** button to print each copy. You can use this command with the QUANTITY command or alone. If you specify a quantity, you do not need to print all of the labels specified. If you do not specify a quantity, you can print one copy when you are ready. If you do not print all of the labels specified with the quantity command, the remaining demands clear when the printer falls asleep. You can also cancel the remaining demands by sending ESC{CN!}.

Command

DEMAND

Example

{PRINT,QUANTITY5, DEMAND:@10,30:PB203|Hi world|}

QSTOP

Stops a specified number of dotlines after sensing the "Q" mark. After the printer finds the mark, the paper advances for *nnn* dotlines and stops. If the printer cannot find a "Q" mark, it continues to search for one. You may need to use the STOP command as a safeguard.

You need to put the printer in Easy Print mode to use this command.

Command

QSTOP*nnn*

where:

nnn is a number from 1 to 65000.

Example

EZ{PRINT,QSTOP500:@50,30:PE203,HMULT3,VMULT3|Hi world|}{LP}

QUANTITY

Allows you to specify how many copies of a label or receipt to print.

Command

QUANTITY*nnn*

where:

nnn is a number from 1 to 999.

Example

{PRINT,QUANTITY5:@10,30:PB203|Hi world|}

ROTATION

Rotates the printout 270° counterclockwise.

Command

ROT270

Example

{PRINT,QUANTITY5,ROT270:@10,30:PB203|Hi world|}

STOP

Advances the media to the correct place for tearing. The command stops the media *nnn* dotlines after the beginning of the receipt. The data sent after the STOP command specifies the total number of dot lines high for this print image.

You can use the STOP command with the QSTOP option to make sure that the printer stops advancing media.

Command

STOP*nnn*

where:

nnn is a number from 1 to 65000.

Example

{PRINT,STOP500,QSTOP125:@10,30:PB203|Hi world|}

Name and Field Options

Name and Field Options are elements of the Print Command Format:

- Bar Code Names (includes PDF417)
- Font Names
- Graphic Names
- Line Names

Barcode Names

Specifies the name of the barcode that you want to use for printing. Each barcode format has a five-character name.

Command

Name	Description	Requirements for Data
AZTEC	Aztec code	You can use all ASCII characters except '}' (right bracket) and '|'.
BC39N	Code 39, 2:1 ratio	You can use these characters in the data field: space, $, %, +, ., /, 0 to 9, and A to Z. Leading and trailing asterisk (*) is automatically inserted.
BC39W	Code 39, 3:1 ratio	You can use these characters in the data field: space, $, %, +, ., /, 0 to 9, and A to Z. Leading and trailing asterisk (*) is automatically inserted.
COBAR	Codabar	You can use 0 to 9, -, $, : /, ., +, a, b, c, d. You must send leading and trailing guard bar a-d.
I2of5	Interleaved 2 of 5, 2.5:1 ratio	You can use 0 to 9. You can use digits only, and the number of digits must be even. The controller will insert a leading zero to make sure there are an even number of digits.
BCI25	Interleaved 2 of 5, 2:1 ratio	You can use 0 to 9. You can use digits only, and the number of digits must be even. The controller will insert a leading zero to make sure there are an even number of digits.
BC128	Code 128	Automatically selects Codes A to C for the shortest barcode. You can use all ASCII characters.
EN128	EAN-128	Uses Code C for the shortest barcode. You can use all ASCII characters.
UPC-A	UPC-A	You can use 0 to 9. You must use 11 digits or there will be an error. The controller calculates the check digit.
EAN08	EAN-8	You can use 0 to 9. You must use 7 digits or there will be an error. The controller calculates the check digit.

Name	Description	Requirements for Data
EAN13	EAN-13	You can use 0 to 9. You must use 12 digits or there will be an error. The controller calculates the check digit.
QRCOD	QR code	You can use 0 -9, A-Z (upper-case only), space, &, %, *, +, -, ., /, :, and ,.
PD417	PDF417	See PDF417.

Field Options

Barcode Field Options	Abbreviation	Description
HIGH*n*	H*n*	Changes height of the barcode in 5 dot inch intervals. The default is 5 dots. 1 < *n* < 255.
WIDE*n*	W*n*	Changes width of the barcode. The default is 1. 1 < *n* < 255. *n*=2 is twice as wide (1/2 density) as *n*=1.

PDF417

The PDF417 barcode has several unique parameters.

Command

{PRINT:@row,column:Name,YDIM *x*,XDIM *x*,COLUMNS *x*,SECURITY *x*|data|}

Command	Setting	Description
YDIM	*x*	Specifies the height of each element in units of .005 inches. The default is 1.
XDIM	*x*	Specifies the width of each element in units of .005 inches. The default is 1.
COLUMNS	*x*	Specifies the number of columns of data printed in each row of the bar-code. If not specified, the printer uses the default value of 2 data columns. The range of columns is 1 to 30. The range of rows is 3 to 30.

Command	Setting	Description
SECURITY	*x*	Specifies the level of error detection and correction codes, from 1 to 8. If you do not specify the code, the printer will use a default value determined by the number of data characters you use: • 1 to 40 characters = level 2 • 41 to 160 characters = level 3 • 161 to 320 characters = level 4 • 321 to 863 characters = level 5 Error detection and correction characters vary with different security levels. • Level 1 adds 4 codewords • Level 2 adds 8 codewords • Level 3 adds 16 codewords • Level 4 adds 32 codewords • Level 5 adds 64 codewords • Level 6 adds 128 codewords • Level 7 adds 256 codewords • Level 8 adds 512 codewords
|.....|	*data*	Enter the data between two "|" characters. If the data is long, do not use the CR/LF characters unless you want them to be part of the barcode string. You can use a maximum of 1848 characters.

Example

This example prints a PDF417 barcode that is 0.30 inches high, 0.010 inches wide, with each row containing 2 data byes, an error correction level of 3, and data of ABCDEDGHIJKL.

{PRINT:@75,10:PD417,YDIM 6,XDIM 2,COLUMNS 2,SECURITY 3|ABCDEFGHIJKL|}

Font Names

Specifies the name of the font that you want your text to use for printing. Each font has a five-character name.

Command

Font Name	Description
ARABS	Arabic CP1256 10x16
ARABB	Arabic CP1256 14x24
CYRLS	Cyrillic 1251 10x16

Font Name	Description
CYRLB	Cyrillic 1251 14x24
GREKS	Greek CP1253 10x16
GREKB	Greek CP1253 14x24
HBRWS	Hebrew CP1255 10x16
HBRWB	Hebrew CP1255 14x24
OCR-A	Intermec OCR-A
OCR-B	Intermec OCR-B
PB107	Monospace 821 BOLD 26
PB145	Monospace 821 WGL4 124
PB203	Monospace 821 WGL4 16
PB338	Monospace 821
PE203	US STandard CP437/
PM05T	Enhanced CNDS Font
PM107	Roman Bold 26
THAIS	Thai CP874 10x16

Field Options

Font Field Options	Description
HMULTn	Increases the width of the font. Where *n* is a value from 1 to 255.
VMULTn	Increases the height of the font. Where *n* is a value from 1 to 255.

Graphic Names

Specifies the name of the stored graphic that you want to use for printing. Each graphic has a five-character name.

Field Options

Graphic Field Options	Description
HMULTn	Multiplies the width of the graphic by *n*.
VMULTn	Multiplies the height of the graphic by *n*.

Example

This example prints the graphic (ALOGO) twice its normal size.

{PRINT:@10,30:ALOGO,HMULT2,VMULT2|}

Line Names

Draws horizontal or vertical lines around text or graphics.

Field Format

HLINE,Length*nnn*,Thick*nnn*

VLINE,Length*nnn*,Thick*nnn*

Field Options

Line Field Options	Description
HLINE	Specifies a horizontal line.
VLINE	Specifies a vertical line.
Length*nnn*	Sets the line length.
Thick*nnn*	Multiplies the height of the graphic by *n*.

Example

This example prints a horizontal line that is 200 dotlines long and 2 dotlines thick.

{Print: @60,30:HLINE,Length200,Thick2|}

Self Test Printout

Causes the printer to print a self test printout.

Command

{TP}

Line Print Mode Commands

Line Print mode commands are case-sensitive. You must type the letters exactly as they appear.

Command	Syntax
Advance "*n*1*n*2" From "Q" Mark	ESC Q
Back	ESC b*n*
Cancel Line Buffer	CAN
Carriage Return	CR
Configure Print Darkness	CD:nn
Double Byte Character Set	ESC DB
Enter Bitmap Graphics Mode	ESC V

Command	Syntax
Enter Compressed Graphics Mode	ESC B
Exit Compressed Graphics Mode	ESC E
Font Encoding for TrueType Fonts	ESC U
Form Feed	FF
Go to Easy Print Mode	ESC EZ
Line Feed	LF
Multiply Font Height	ESC H
Reset Printer	ESC @
Select Font	ESC w
Select or Cancel Double-Wide Print	ESC W
Set Double-High and Double-Wide	ESC !
Set Double-Wide Print	SO
Set Form Length	ESC C
Set Interline Spacing	ESC A
Set Single-Wide Print	SI

Advance "*n*1*n*2" From "Q" Mark

Advances the paper "*n*1*n*2" dotlines from the "Q" mark. The printer feeds the media until it finds the "Q" mark or black mark. When the printer finds the mark, it feeds a distance of (*n*1*256+*n*2) dotlines.

This command is only run when the printer is in Line Print mode.

Command

Format	Value
ASCII	ESC Q *n*1*n*2
Hex	1B 51 *n*1*n*2

Back

Uses variable data to define how many dots to pull the label back.

Command

Format	Value
ASCII	ESC b*n*
Hex	1B 62 *n*

n = number of dotlines the printer should back up in dec.

Cancel Line Buffer

Causes characters received on the currently downloading line (but not printed) to be discarded.

Command

Format	Value
ASCII	CAN
Hex	18

Carriage Return

Causes the printer to print the line being formed and then advance the media. You can use either the Carriage Return (CR) or Line Feed (LF) commands to print and advance media.

Command

Format	Value
ASCII	CR
Hex	0D

See Also

Line Feed

Configure Print Darkness

Advances the paper by a specified number of dotlines.

Command

{CD:nn}

where:

nn represents the paper stock.

nn=-25: -25% (for very sensitive stock)
nn=-20: -20%
nn=-15: -15%
nn =-10:-10%
nn =-05:-5%
nn = 00: 00 (default - for "regular" stock)
nn = 05:+5%
nn = 10: +10%
nn = 15:+15%
nn = 20: +20%
nn = 25: +25%

nn = 30: +30%
nn = 35: +35% (for high temp stock)

Double Byte Character Set

Select a double byte character set for the font.

Command

Format	Value
ASCII	ESC DB
Hex	1B 44 42

Enter Bitmap Graphics Mode

Prints user-generated bitmap graphics across the width of the printhead.

After the printer receives this command, the printer dumps the binary data supplied directly to the printhead. Graphics printed with this command must be the exact width of the printhead in bits. A "1" bit indicates that a dot is on. A "0" bit indicates that a dot is off. Bit 7, of the first byte of data the printer receives, prints at the left-most dot on the printhead as you view the printhead with the paper feeding away from you.

The printer remains in Bitmap Graphics mode until it receives the total amount of bytes necessary to fill *n1 n2* lines of print.

Command

Format	Value
ASCII	ESC V *n1 n2*
Hex	1B 56 *n1 n2*

where:

n1 n2 (*n1**256 + *n2*) forms a 16-bit binary number set, with the most significant byte first.

Enter Compressed Graphics Mode

Accepts compressed graphics data, and then decompresses the graphics and prints them.

Each compressed dotline (using a run-length encoding scheme) is preceded by an uppercase "G." Each uncompressed dotline is preceded by an uppercase "U." You can efficiently handle vertical white space by using an uppercase "A" followed by a single byte count of the number of dotlines to advance

Compressed dotlines use a single graphics byte followed by the number of times that byte is to be repeated. When the printer receives the compressed graphics data

command (ESC B), you must have each dotline preceded by the "G" or "U." Or, you can send an "A" followed by the number of lines to advance.

When you finish sending all of the data, you must send ESC E to exit compressed graphics mode.

Compressed graphics mode requires that the graphic image be the same width as the printhead being used.

Command

Format	Value
ASCII	ESC B
Hex	1B 42

See Also

Exit Compressed Graphics Mode

Exit Compressed Graphics Mode

Exits compressed graphics mode.

Command

Format	Value
ASCII	ESC E
Hex	1B 45

See Also

Enter Compressed Graphics Mode

Font Encoding for TrueType Fonts

Selects a TrueType font set.

Command

Format	Value
ASCII	ESC U
Hex	1B 55

Form Feed

Causes the printer to print the line being formed and advances the media to the top of form.

Command

Format	Value
ASCII	FF
Hex	0C

Go to Easy Print Mode

Puts the printer in Easy Print mode. You must use capital letters for "EZ".

Command

Format	Value
ASCII	ESC E Z
Hex	1B 45 5A

See Also

Easy Print Mode Commands

Line Feed

Causes the printer to print the line being formed and then advances the media. You can use either the Line Feed (LF) or Carriage Return (CR) commands to print and advance media.

Command

Format	Value
ASCII	LF
Hex	0A

Multiply Font Height

Multiplies the height of the font by *n*. This command applies to the entire line.

Command

Format	Value
ASCII	ESC H *n*
Hex	1B 48 *n*

Reset Printer

Resets the printer to the default settings.

Command

Format	Value
ASCII	ESC @
Hex	1B 40

Select or Cancel Double-Wide Print

Selects or cancels double-wide printing for the current font.

Command

Format	Value
ASCII	ESC W n
Hex	1B 57 n

where n is 1 or 2:

1 = select double-wide

2 = cancel double-wide

Select Font

Selects a font from the fonts available on your printer.

Command

Format	Value	Default
ASCII	ESC w *n*	*n* = 108
Hex	1B 77 *n*	*n* = 21

where:

n is a number from 33 to 126 (21 to 7E hex).

This table lists the available resident fonts.

Font (Hex)	Description	CPI	Column (2" tph)	Column (4" tph)
28	Intermec OCR-A	17.3	34	52
29	Intermec OCR-B	8.7	17	26
22	Monospace 821 WGL4 16	19	38	57
21	US Standard CP437 with Euro 24	19	38	57
6D	Monospace 821 WGL4 24	13.3	27	40
42	Enhanced CNDS font	31.6	63	95
2B	Monospace 821 bold 26	10	20	30

Font (Hex)	Description	CPI	Column (2" tph)	Column (4" tph)
26	Roman bold 26	10	20	30
66	Arabic CP1256 10x16	19	38	57
46	Arabic CP1256 14x24	13.3	27	40
70	Cyrillic 1251 10x16	19	38	57
50	Cyrillic 1251 14x24	13.3	27	40
69	Greek CP1253 10x16	19	38	57
49	Greek CP1253 14x24	13.3	27	40
6E	Hebrew CP1255 10x16	19	38	57
4E	Hebrew CP1255 14x24	13.3	27	40
6A	Thai CP874 10x16	19	38	57
4A	Thai CP874 14x24	13.3	27	40

Set Double-High and Double-Wide

Selects the font height and width for one line. This command applies to the entire line.

Command

Format	Value
ASCII	ESC ! *n*
Hex	1B 21 *n*

where *n* is:

10h: Double-high

20h: Double-wide

30h: Double-high and double-wide

Set Double-Wide Print

Prints the current font in double the width until the printer receives a Set Single-Wide Print (SI) command or a Carriage Return (CR).

Command

Format	Value
ASCII	SO
Hex	0E

Set Form Length

Sets the page length in character lines.

Command

Format	Value	Default
ASCII	ESC C *n*	*n* = 20
Hex	1B 43 *n*	*n* = 14

where:

n represents the number of lines in the form. *n* is a single byte and the range is 1 to 255.

Set Interline Spacing

Sets the number of blank dot lines that are fed between character lines.

Command

Format	Value	Default
ASCII	ESC A *n*	*n* = 0
Hex	1B 41 *n*	*n* = 0

where:

n is the number of blank lines added after completion of the current line and before the next line begins printing. Range is 1 to 155.

Set Single-Wide Print

Prints the current font in single width.

Command

Format	Value
ASCII	SI
Hex	0F

See Also

Set Double-Wide Print

Network Commands

Use network commands to set up the network configuration. There are two types of network commands you can send from the host: set (S) and query (Q). Set commands can only be set by an allowed user while query commands can be set by all users.

This table lists the available network commands.

Command	Syntax
Retrieve Network Information	ESC{QST:NW}
Set Default Router	ESC{SWF:G:x}
Set IP Address	ESC{SWF:I:x}
Set IP Configuration	ESC{SWF:D:x}
Set Netmask	ESC{SWF:M:x}
Set PS Name	ESC{SWF:N:x}
Set TCP Port Number	ESC{SWF:P:x}

Retrieve Network Information

Retrieves all network information.

Command

ESC{QST:NW}

Example

This command retrieves all of the network settings on the printer.

ESC{QST:NW}

Returns this reply if the command is not successful:

{QST:NW:1}

Returns this reply if the command is successful:

{QST:NW:N:*x*1;D:*x*;I:*x*;M:*x*;G:*x*;P:*x*}

Query	Reply	Description
N	*x*	The PS_NAME.
D	*x*	The IP Selection, which is a value of 0 (MANUAL), 1 (DHCP), 2(BOOTP), or 3 (DHCP+BOOTP).
I	*x*	The IP address, represented by a string in the form x.x.x.x, where x can be one to three digits.
M	*x*	The Netmask, represented by a string in the form x.x.x.x, where x can be one to three digits.
G	*x*	The default router, represented by a string in the form x.x.x.x, where x can be one to three digits.
P	*x*	The RTEL_PR1.

Set Default Router

Specifies the IP (Internet Protocol) address of the default router. The set value is used only if DHCP and BOOTP are off.

Only users with administrative privileges can set this command.

Command

ESC{SWF:G:*x*}

where:

x is in the form of n.n.n.n. And, n can be 1 to 3 digits.

Example

This command sets the default router value to 192.168.1.1.

ESC{SWF:G:192.168.1.1}

Returns this reply if the command is not successful:

{SWF:G:1}

Returns this reply if the command is successful:

{SWF:G:0}

Set IP Address

Sets the IP (Internet Protocol) address for which the printer is recognized in a TCP/IP based network. The set value remains after the printer is rebooted.

Only users with administrative privileges can set this command.

Command

ESC{SWF:I:*x*}

where:

x is in the form of n.n.n.n. And, n can be 1 to 3 digits.

Example

This command sets the IP address to 192.168.1.181. If the command is successful, the printer sends {SWF:I:0} as a reply. Otherwise, it sends {SWF:I:1}.

ESC{SWF:I:192.168.1.181}

Returns this reply if the command is not successful:

{SWF:I:1}

Returns this reply if the command is successful:

{SWF:I:0}

Set IP Configuration

Sets the IP (Internet Protocol) configuration to MANUAL, DHCP, BOOTP, or DHCP+BOOTP.

Only users with administrative privileges can set this command.

Command

ESC{SWF:D:*x*}

where:

x is:

0: MANUAL

1: DHCP

2: BOOTP

3: DHCP+BOOTP (default)

Example

This command sets the IP configuration to manual.

ESC{SWF:D:0}

Returns this reply if the command is not successful:

{SWF:D:1}

Returns this reply if the command is successful:

{SWF:D:0}

Set Netmask

Sets the mask that describes the ”number of hosts” on the subnet. The set value is used only if DHCP and BOOTP are off.

Only users with administrative privileges can set this command.

Command

ESC{SWF:M:*x*}

where:

x is in the form of n.n.n.n. And, n can be 1 to 3 digits.

Example

This command sets the mask number to "255.255.255.0."

ESC{SWF:M:255.255.255.0}

Returns this reply if the command is not successful:

{SWF:M:1}

Returns this reply if the command is successful:

{SWF:M:0}

Set PS Name

Sets the WINS name.

Only users with administrative privileges can set this command.

Command

ESC{SWF:N:*x*}

where:

x is a string. The default value is "INTERMEC" followed by the last three bytes of the MAC address.

Example

This command sets the WINS name to "Portable Printer."

ESC{SWF:N:Portable Printer}

Returns this reply if the command is not successful:

{SWF:N:1}

Returns this reply if the command is successful:

{SWF:N:0}

Set TCP Port Number

Sets the raw TCP (Transmission Control Protocol) port number.

Only users with administrative privileges can set this command.

Command

ESC{SWF:P:*x*}

where:

x has a default value of 9100.

Example

ESC{SWF:P:9100}

Returns this reply if the command is not successful:

{SWF:P:1}

Returns this reply if the command is successful:

{SWF:P:0}

Query Commands

Use the query commands to retrieve information about the printer or the print request. There are three steps involved in sending a query:

1. Frame your query using the correct command format.
2. Send the query to the printer.
3. Use the appropriate table to interpret the printer's reply.

Query Commands General Format

Query format:	ESC{Query?}
Reply format:	{Query!Query1:Reply1:...QueryN:ReplyN}
Function:	The word "Query" in the query format above is replaced in each case by a specific command. For example, send the string {BT?}.

How to Interpret the Reply to a Query

Each query reply contains several pairs of letters. The first letter or "query character" is separated from the reply character by a colon (:), and the pair is followed by a semicolon (;). Use the query reply table for each command to interpret the reply.

This table lists the available Query commands.

Command	Syntax
Battery	ESC{BT?}
Bluetooth Query	ESC{BL?}
Cancel	ESC{CN!}
Configuration	ESC{CF?}
Demand Quantity	ESC{DQ?}
Fonts	ESC{FN?}
Formats Query	ESC{FM?}

Command	Syntax
Graphics	ESC{GR?}
Hardware Revision	ESC{QST:HW}
Infrared	ESC{IR?}
Label Configuration	ESC{CL?}
Memory	ESC{MY?}
Printhead	ESC{PH?}
Reset	ESC{RE!}
Serial Number	ESC{QST:SN}
Status	ESC{ST?}
Version	ESC{VR?}

Battery

Returns current battery voltage and charging status.

Query Format

ESC{BT?}

Reply Format

{BT!V1:*n.n*;CH1:*x*}

Use this table to understand the query reply.

Query	Reply	Definition
V1	n.n	Battery voltage in DC volts.
CH1	x	The status of the battery charge. Values for *x* include: C = Charging complete with external power connected. I = Charging in progress with external power connected. E = Charging error with external power connected. N = Not charging. No external power connected.

Reply Example

{BT!V1:8.4;CH1:C}

Bluetooth Query

Returns the current Bluetooth configuration (if applicable).

Query Format

ESC{BL?}

Reply Format

{BL!AD:x;F:x;SN:x;PR:x;CL:x;D:x;C:x;B:x;E:x;A:x;P:x;I:x;PWR:x;W:x}

Use this table to understand the query reply.

Command	Setting	Definition
AD	x...x	Returns the MAC address.
F	x...x	Returns the device name.
SN	x...x	Returns the service name.
PR	xxx	Returns the profile support.
CL	xxxxx	Returns the class of device.
D	x	Returns the discoverable state.
C	x	Returns the connectable state.
B	x	Returns the printer reserve status.
E	x	Returns the encryption status.
A	x	Returns the authentication status.
P	x	Returns the presence of a passcode.
S	x	Returns the security status, open or closed.
I	x	Returns the inactivity timeout, in seconds.
W	x	Returns the Bluetooth Watchdog timeout value.
PWR	x	Returns the power status.

Reply Example

{BL!AD:00:80:37:1A:0F:F7;F:Wireless Printer;SN:2t Bluetooth;PR:SPP;CL:040680;D:Y;C:Y;B:Y;E:N;A:N;P:Y; S:0;PWR:ON}

Cancel

Cancels demand printing.

Query Format

ESC{CN!}

Reply Format

{CN!}

Configuration

Returns information about configurable options.

Query Format

ESC{CF?}

Reply Format

{CF!L:*xx*;B:*xxx*;P:*x*;N:*x*;H:*x*;D:*xx%*;Y:*x*;S:*x*;T:*nnnn*}

Use this table to understand the query reply.

Query	Reply	Definition
L	*xx*	The current printing mode of the printer. Options are Line Printer (LP) and Easy Print (EZ).
B	*xxx*	The baud rate of the printer. Options are: 003 = 300 012 = 1200 024 = 2400 048 = 4800 096 = 9600 192 = 19200 384 = 38400 576 = 57600 115 = 115200
P	*x*	The parity of the printer. Parity can be N (None), E (Even), or O (Odd).
N	*x*	Number of data bits. Data bits is always a value of 8.
H	*x*	Handshaking can be value of H (Hardware), S (Software), or B (Both).
D	*xx%*	Darkness adjust. Values can be -40% to +40%.
Y	*x*	The ply of paper is always a value of 1.
S	*x*	The beeper is always a value of Y (on).
T	*nnnn*	Timeout value in seconds. For the PB42, the timeout is always a value of 9999 (always on).

Reply Example

{CF!L:LP;B:115;P:N;N:8;H:H;D:+00%;Y:1;S:Y;T:0000}

Demand Quantity

Returns the remaining quantity of copies left to print.

Query Format

ESC{DQ?}

Reply Format

nnn

where:

nnn represents a number from 1 to the remaining number of copies to print.

Fonts

Returns a list of all fonts available on the printer, including both permanent and downloaded fonts. Each query and reply in a font is separated from the next by a comma. A semicolon, a carriage return, and a line feed (;<CR><LF>) separate each font.

Query Format

ESC{FN?}

Reply Format

{FN!N5:*xxxxx*,N1:*x*(*nn*),L:*x*,UV:*x*,UD:*xx/xx/xx*,US:*x...x*,CPI:*nn.n*}

Use this table to understand the query reply.

Query	Reply	Description
N5	*xxxxx*	Five character name of the font.
N1	*x* (*nn*)	One character name of the font. You can also use hex for the one character name.
L	*x*	The location of the font. Options are resident (R) or download (D).
UV	*x*	User version number. This is a specified number from 0 to 9.
UD	*xx/xx/xx*	User date that the format was created.
US	*x...x*	User descriptive summary of the font. This reply can be up to 20 characters.
CPI	*nn.n*	Characters per inch.

Reply Example

{FN!N5:PB203,N1:!(21),L:R,UV:1,UD:01/02/05,US:Monospace 821 WGL4,CPI:16.0;
N5:PB145,N1:"(22),L:R,UV:1,UD:01/02/05,US:Monospace 821 WGL4,CPI:24.4}

Formats Query

Lists formats downloaded to the printer. The reply is similar to the fonts query reply, but without the font-related information.

Query Format

ESC{FM?}

Reply Format

{FM!N5:x,L:x,UV:x,UD:x,US:x}

Use this table to understand the query reply.

Query	Reply	Definition
N5	xxxxx	Five-character name of the format
L	x	Indicates if the format is resident or download. Values for *x* include: L = Resident D = Download
UV	x	User version number
UD	x	User date
US	x	User descriptive summary of font, 20 characters

Reply Example

{FM!N5:LABEL,L:D,UV:1,UD:05/29/96,US:PROPERTY ID LABEL-BC}

Graphics

Returns a list of all graphics currently downloaded to the printer. Each query and reply in a font is separated from the next by a comma.

Query Format

ESC{GR?}

Reply Format

{GR!N5:*xxxxx*,N1:*x*,L:*x*,UV:*x*,US:*x...x*}

Use this table to understand the query reply.

Query	Reply	Description
N5	*xxxxx*	Five character name of the graphic.
N1	*x* (*nn*)	One character name of the format. You can also use hex for the one character name.
L	*x*	The location of the graphic. Options are resident (R) or download (D).
UV	*x*	User version number. This is a specified number from 0 to 9.
US	*x...x*	User descriptive summary of the graphic. This reply can be up to 20 characters.

Reply Example

{GR!N5:LOGO1,N1:z(7A),L:D,UV:1,US:Big Logo}

Hardware Revision

Returns the hardware revision of the printer being queried.

Query Format

ESC{QST:HW}

Reply Format

{QST:HW:Rev*x*}

Use this table to understand the query reply.

Query	Reply	Description
HW	Rev*x*	The hardware revision of the printer.

Reply Example

{QST:HW:RevB}

Infrared

Returns the model number of the remote printer.

Query Format

ESC{IR?}

Reply Format

{IR!P:*x*;AV:*x*;DV:*x*;IV:*x*;IN:*x*;ID:*x*}

Use this table to understand the query reply.

Query	Reply	Description
P	*x*	Off
AV	*x*	Not supported
DV	*x*	Not supported
IV	*x*	Not supported
IN	*x*	All printers
ID	*x*	All printers

Reply Example

{IR!P:OFF;AV:Not supported;DV:Not supported;IV:Not supported;IN:PR2;ID:PR2}

Label Configuration

.

Query Format

ESC{CL?}

Reply Format

{CL!T:n;D:n;M:n;S:n;P:n;U:n;B:n;W:n}

Use this table to understand the query reply.

Query	Reply	Definition
T	*n*	Type of stock used. P=Plain paper T=Top QMark B=Bottom QMark
D	*n*	Distance to advance after QMark is sensed before stop. Distance given in dot-lines (.005 inches).
M	*n*	Maximum distance to advance if QMark is not sensed. Distance given in dotlines (.005 inches).
S	*n*	S: Sensor to use for paper out. T=Top sensor B=Bottom sensor
P	*n*	Presenter Y=Yes (use) N=No (do not use)
U	*n*	Label under presenter timeout. Time in seconds to not go to sleep if label is left under the presenter sensor.
B	*n*	Backup distance. Distance given in dotlines (.005 inches).
W	*n*	Windows driver QMark (automatically advance to find QMark after print job from Windows driver). Y=Yes (assume stock is QMarked) N=No (assume stock is plain paper)

Reply Example

{CL!T:P;D:1;M:1;S:T;P:Y;U:3;B:2;W:N}

Memory

Returns the amount of all memory available in the printer, including the amount used and the amount remaining for an application.

Query Format

ESC{MY?}

Reply Format

{MY!FS:*x*;FM:*x*;RS:*x*;DT:*nnnnnn*;DR:*nnnnnn*}

Use this table to understand the query reply.

Query	Reply	Description
FS	*x*	The size of the flash storage (32 Mbytes) on the printer.
FM	*xxxx*	The flash manufacturer (Micron).
RS	*x*	The RAM size (128 Mbytes) of the printer.
DT	*nnnnnn*	Download total area in bytes. The total flash area is 33311744 bytes.
DR	*nnnnnn*	Download flash memory remaining in bytes.

Reply Example

{MY!FS:32M;FM:ATMEL;RS:128M;DT:1048576;DR:1036228}

Printhead

Returns the type of printhead and the number of dots across. Each query reply is separated by a semicolon.

Query Format

ESC{PH?}

Reply Format

{PH!TD:*nnnn;*DD:*nnn*;M:*x...x;*T:*nn.n*C}

Use this table to understand the query reply.

Query	Reply	Definition
TD	*nnnn*	Total number of dots across the printhead.
DD	*nnn*	The dot density of the printhead (dots per mm).
M	*x...x*	Model number of the printhead.
T	±*nn.n*C	Current temperature of the printhead in degrees Celsius.

Reply Example

{PH!TD:0832;DD:203;M:LPT3445;T:+27.8C}

Reset

Resets the printer.

Query Format

ESC{RE!}

Reply Format

{RE!}

Serial Number

Returns the serial number of the printer being queried.

Query Format

ESC{QST:SN}

Reply Format

{QST:SN:*x...x*}

Use this table to understand the query reply.

Query	Reply	Definition
SN	*x...x*	The serial number of the printer.

Reply Example

{QST:SN:32510514004}

Status

Returns information about the ability of the printer to print the next image and reports any errors from the last print request such as paper condition, command errors, buffer size, and battery voltage.

Query Format

ESC{ST?}

Reply Format

{ST!E:*x*;L:*x*;P:*x*;R:*nn*;B:*x*;H:*x*}

Use this table to understand the query reply.

Query	Reply	Description
E	*x*	Gives the error status. Options include: N = No error c = Command error (invalid command) d = Data error f = Font not available g = Global parameter error
L	*x*	Lid up (U) or lid down (D).
P	*x*	Paper present (P) or not present (N).

Query	Reply	Description
R	*nnn*	RAM buffer size remaining in kilobytes.
B	*x*	Condition of the battery. Options include: O = OK V = Out of voltage range
H	*x*	Printhead temperature. Options include: OK (O) Out of range (T)

Reply Example

{ST!E:N;L:D;P:P;R:62;B:O,H:O}

Version

Returns the version number of firmware and downloaded files.

Query Format

ESC{VR?}

Reply Format

{VR!F:*n.nn*;B:*nn.nn*;D:*n.n*}

Use this table to understand the query reply.

Query	Reply	Description
F	*n.nn*	Firmware version.
B	*nn.nn*	Boot code version.
D	*n.n*	Download version.

Reply Example

{VR!F:1.01;B:1.0;D:1.0}

Wireless Commands

Use these commands to configure the settings for the wireless network your printer is on. There are two types of wireless commands you can send from the host: set (S) and query (Q). All set commands must also be activated using the Set Activate Settings 802.1x or Wireless LAN command.

Set commands can only be set by users with administrative privileges while query commands can be sent by all users.

These wireless configurations can be retrieved but not set:

- AP_MAC
- Signal
- Speed
- Region

This table lists the available wireless commands.

Command	Syntax
Retrieve Wireless LAN Settings	ESC{QST:TC}
Set Activate Settings 802.1x or Wireless LAN	ESCEZ{COMMIT}{LP}
Set Authentication	ESC{SWF:NA:<sexp>}
Set Certificate Authority	ESC{SWF:CA:<sexp>
Set Channel	ESC{SWF:C:<sexp>}
Set EAP Password	ESC{SWF:PW:<sexp>}
Set EAP Type	ESC{SWF:ET:<sexp>}
Set EAP User Name	ESC{SWF:U:<sexp>}
Set Inner Authentication	ESC{SWF:IA:<sexp>}
Set Mode	ESC{SWF:T:<sexp>}
Set Power Mode	ESC{SWF:P2:<sexp>}
Set Roam	ESC{SWF:R:<sexp>}
Set Server Common Name 1	ESC{SWF:SCN1:<sexp>}
Set Server Common Name 2	ESC{SWF:SCN2:<sexp>}
Set SSID	ESC{SWF:E:<sexp>}
Set TTLS User	ESC{SWF:TU:<sexp>}
Set Validate	ESC{SWF:V:<sexp>}
Set WEP	ESC{SWF:W:<sexp>}
Set WEP Key	ESC{SWF:K:<sexp>}
Set WEPn	ESC{SWF:Kn:<sexp>}
Set WPA	ESC{SWF:W:<sexp>}
Set WPA2	ESC{SWF:W:<sexp>}
Transmit WPA Pre-Shared Key	ESC{SWF:PK:<sexp>}

Retrieve Wireless LAN Settings

Returns all the wireless settings of the printer.

Command

ESC{QST:TC}

Example

This command retrieves all of the wireless settings on the printer.

ESC{QST:TC}

Returns this reply if the command is not successful:

{QST:TC:1}

Returns this reply if the command is successful:

{QST:TC:E:*x*;T:*x*;NA:*x*;W:*x*;K:*x*;K1:*x*;K2:*x*;K3:*x*;K4:*x*
;PK:x;RE:x;R:x;P2:x;C:x;B:x;L:x;Z:x;ET:x;U:x;PW:x;TU:x;IA:x;CA:x;SCN1:x;SCN2:x;V:x;AT:x;80211bInfo:x}

Use the table below to understand the retrieval parameters reply.

Query	Reply	Definition
E	*x*	The SSID (Service Set Identifier).
T	*x*	The MODE, which is a value of H (ADHOC) or P (INFRA).
NA	*x*	The type of network authentication, which is a value of 0 (OPEN), 1 (SHARED), or 2 (AUTO).
W	*x*	The WPA (Wi-Fi Protected Access) setting, which is a value of 1 (WEP), 2 (WPA), or 3 (WPA2).
K	*x*	The WEP (Wired Equivalent Privacy) key, which is a value of 0 (static key is not used), 1 (WEP1), 2 (WEP2), 3 (WEP3), or 4 (WEP4).
K1 K2 K3 K4	*x*	The WEPn (Wired Equivalent Privacy key), which is an empty string (if the WEP key is not configured) or ”****” (if a value is set).
PK	*x*	The WPA PSK (pre-shared key), which is an empty string (if WPA PSK is not configured) or ”****” (if a value is set).
RE	*x*	The current Region setting.
R	*x*	The current Roam setting, which is a value of 0-3.
P2	*x*	The current Power Mode, which is a value of 0 (CAM), 1 (PS), or 2 (FAST).
C	*x*	The current channel, which is either a value of 0 (an association has not been made), or 1 to 14.
B	*x*	The AP_MAC.
L	*x*	The signal, which is a value of 0 (no signal) to 100 (ideal signal).
Z	*x*	The speed, which is a value between 0 and 54 (Mbps), indicating the current SPEED.
ET	*x*	The EAP type, which is a value of 0 (OFF), 1 (TTLS), 2 (LEAP) or (PEAP).

Query	Reply	Definition
U	*x*	The current EAP_USER.
PW	*x*	The EAP password, which is an empty string or a four-character value.
TU	*x*	The current TTLS_USER.
IA	*x*	The inner authentication, which is a value of 0 (PAP), 1 (MSCHAPv2), 2 (EAP/MSCHAPv2), 3 (EAP/MD5), or 4 (EAP/GTC).
CA	*x*	The CA certificate common name.
SCN1	*x*	The server SERVER_CN1.
SCN2	*x*	The SERVER_CN2.
V	*x*	The validation setting, which is a value of 0 (OFF) or 1 (ON).
AT	*x*	The current STATE.
8021bInfo	*x*	Information about the Wi-Fi hardware.

Set Activate Settings 802.1x or Wireless LAN

Activates the 802.1x and Wireless LAN settings. You can change 802.1x or Wireless LAN settings, but you need to activate the settings with this command before the settings can take effect.

Only users with administrative privileges can set this command.

Command

ESC EZ{COMMIT}{LP}

Example

ESC{SWF:T:H}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:T:1}

Returns this reply if the command is successful:

{SWF:T:0}

Set Authentication (Wireless)

Sets the type of network authentication on the printer: Open System, Shared Key, or Auto. An Auto setting defaults to what is currently being used by the network.

Only users with administrative privileges can set this command.

Command

ESC{SWF:NA:<sexp>}ESC EZ{COMMIT}{LP}

where values for <sexp> are:

0: Open. This setting cannot be set to any other value than Open if WPA or WPA2 is currently set to 0.

1: Shared Key

2: Auto

Example

This command sets the authentication type to Open.

ESC{SWF:NA:0}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:NA:1}

Returns this reply if the command is successful:

{SWF:NA:0}

Set Certificate Authority

Specifies a CA (certificate authority) certificate for the printer to use. Use this setting only for server certificate validation. The CA must be the value used to sign the server certificate. Before you set this command, you must first send the certificate file to the directory you plan to set as a certificate path.

Only users with administrative privileges can set this command.

Command

ESC{SWF:CA:<sexp>}ESC EZ{COMMIT}{LP}

where:

<sexp> is a valid certificate path value.

Example

ESC{SWF:CA:tmp/mycert.cer}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:CA:1}

Returns this reply if the command is successful:

{SWF:CA:0}

Set Channel

Shows the current channel being used. 802.11b/g operates on a number of different channels, corresponding to different frequencies. This setting can have a value of 0 to 14. A channel of 0 signifies that an association has not yet been made.

Only users with administrative privileges can set this command.

Command

ESC{SWF:C:<sexp>}ESC EZ{COMMIT}{LP}

where:

<sexp> is a value from 1 to 14.

Notes

- This setting is read-only if Set Mode is set to INFRA.
- If Mode is set to Adhoc, values could be between 1-14 depending on the .REGION setting
- Default: 1 (Adhoc)

Example

This command sets the value of channel to "2."

ESC{SWF:C:2}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:C:1}

Returns this reply if the command is successful:

{SWF:C:0}

Set EAP Password

Sets the EAP (Extensible Authentication Protocol) password used to log on to the network.

Only users with administrative privileges can set this command.

Command

ESC{SWF:PW:<sexp>}ESC EZ{COMMIT}{LP}

where:

<sexp> is a valid password. <sexp> can be up to 96 characters. The default for the EAP password is "anonymous".

Example

This command sets the EAP password to "Friend."

ESC{SWF:PW:Friend}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:PW:1}

Returns this reply if the command is successful:

{SWF:PW:0}

Set EAP Type

Sets the EAP (Extensible Authentication Protocol) type to use for the 802.1x authentication.

Only users with administrative privileges can set this command.

Command

ESC{SWF:ET:<sexp>}ESC EZ{COMMIT}{LP}

where values for <sexp> are:

0: OFF. If you set EAP Type to a value other than OFF, WPA_PSK is cleared, WEP_KEY is set to "0", and Set Mode is set to INFRA.

1: TTLS. Changes the INNER_AUTH setting to a value more applicable to that specific EAP type. Set Inner Authentication is automatically set to MSCHAPv2.

2: LEAP. Only uses open authentication and does not work with Network EAP.

3: PEAP. Changes the INNER_AUTH setting to a value more applicable to that specific EAP type. Set Inner Authentication is automatically set to EAP/MSCHAPv2.

The valid values are LEAP, TTLS, PEAP, and OFF (where 802.1x is not used.)

Setting a value other than OFF or TTLS automatically clears TTLS_USER

Example

This command sets the EAP type to LEAP.

ESC{SWF:ET:2}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:ET:1}

Returns this reply if the command is successful:

{SWF:ET:0}

Set EAP User Name

Sets the EAP (Extensible Authentication Protocol) user name to log on to the network.

Only users with administrative privileges can set this command.

Command

ESC{SWF:U:<sexp>}ESC EZ{COMMIT}{LP}

where:

<sexp> is a valid user name. <sexp> can be up to 96 characters, but Intermec recommends a user name that is eight characters or shorter. The default EAP user name is "anonymous".

Example

This command sets the EAP user name to "Gandalf."

ESC{SWF:U:Gandalf}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:U:1}

Returns this reply if the command is successful:

{SWF:U:0}

Set Inner Authentication

Sets the inner authentication type. This setting is only used when Set EAP Type is set to either TTLS or PEAP. The Inner Authentication value is only shown on the network test label if the printer is using 802.1x security.

Only users with administrative privileges can set this command.

Command

ESC{SWF:IA:<sexp>}

where the values for <sexp> are:

0: PEAP. Use PEAP for TTLS, only

1: MSCHAPv2. PEAP also uses EAP in the tunnel, so PEAP for MSCHAPv2 and EAP/MSCHAPv2 are equivalent settings.

2 (default): EAP/MSCHAPv2. PEAP also uses EAP in the tunnel, so PEAP for MSCHAPv2 and EAP/MSCHAPv2 are equivalent settings.

3: EAP/MD5

4: EAP/GTC

Example

This command sets the inner authentication type to MSCHAPv2.

ESC{SWF:IA:1}

Returns this reply if the command is not successful:

{SWF:IA:1}

Returns this reply if the command is successful:

{SWF:IA:0}

Set Mode

Sets the current wireless setting behavior of the printer.

Only users with administrative privileges can set this command.

Command

ESC{SWF:T:<sexp>}ESC EZ{COMMIT}{LP}

where the values of <sexp> are:

H: Adhoc. When Mode is set to Adhoc, these commands are also set:

- Set WPA = Off (disable WPA)
- Set WPA2 = Off (disables WPA2)
- Set EAP Type = Off (clears any EAP settings)
- Set Channel = a value from 1 to 14

P: Infra (default)

Example

This command sets the mode to Adhoc.

ESC{SWF:T:H}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:T:1}

Returns this reply if the command is successful:

{SWF:T:0}

Set Power Mode

Sets how the battery behaves when the printer is not in use. For more information about battery power, see your printer user manual.

Only users with administrative privileges can set this command.

Command

ESC{SWF:P2:<sexp>}ESC EZ{COMMIT}{LP}

where values for <sexp> are:

0 (default): Constant Awake Mode (CAM)

1: Power Saving (PS)

2: Fast Power Saving (FAST)

Setting the Power Mode to "1" or "2" saves more battery life but could impact network connection reliability.

Example

This command sets the printer to Power Saving Mode.

ESC{SWF:P2:1}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:P2:1}

Returns this reply if the command is successful:

{SWF:P2:0}

Set Roam

Sets the roaming behavior of the printer. In an environment with several access points, the network adapter may have difficulty determining which access point to connect to. To make the network adapter less inclined to switch access points, you can change the Roaming Bias. A higher Roaming Bias value makes the network adapter less inclined to roam. The roaming settings are based on the RSSI (Received Signal Strength) of the device.

Only users with administrative privileges can set this command.

Command

ESC{SWF:R:<sexp>}ESC EZ{COMMIT}{LP}

where values for <sexp> are:

0 (off): Trigger: -99 dBm, Signal: 1

1: Trigger: -60 dBm, Signal: 40

2: Trigger: -70 dBm, Signal: 40

3: Trigger: -80 dBm, Signal: 20

The Roaming values have a Roaming delta of 5 dBm.

Example 1

This command disables roaming behavior.

ESC{SWF:R:0}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:R:1}

Returns this reply if the command is successful:

{SWF:R:0}

Example 2

This command signals the printer to begin roaming at -60 dBm.

ESC{SWF:R:1}

Returns this reply if the command is not successful:

{SWF:R:1}

Returns this reply if the command is successful:

{SWF:R:0}

Set Server Common Name 1

Sets the server common name used for Server Certificate Validation. If Server Common Name 1 is not set, Server Common Name 2 is used. If Server Common Name 2 is also not set, any common name is accepted.

Only users with administrative privileges can set this command.

Command

ESC{SWF:SCN1:<sexp>}ESC EZ{COMMIT}{LP}

where:

<sexp> is a valid Server Common Name value.

Example

ESC{SWF:SCN1:Moria1}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:SCN1:1}

Returns this reply if the command is successful:

{SWF:SCN1:0}

Set Server Common Name 2

Sets the server common name used for Server Certificate Validation. If Set Server Common Name 1 is not set, Server Common Name 2 is used. If Server Common Name 2 is also not set, any common name is accepted.

Only users with administrative privileges can set this command.

Command

ESC{SWF:SCN2:<sexp>}ESC EZ{COMMIT}{LP}

where:

<sexp> is a valid Server Common Name value.

Example

ESC{SWF:SCN2:Moria2}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:SCN2:1}

Returns this reply if the command is successful:

{SWF:SCN2:0}

Set SSID

Sets the Service Set Identifier (SSID) or network name that differentiates one network from another in a wireless network.

Only users with administrative privileges can set this command.

Command

ESC{SWF:E:<sexp>}ESC EZ{COMMIT}{LP}

where:

<sexp> is an SSID name.

Example

ESC{SWF:E:milkyway}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:E:1}

Returns this reply if the command is successful:

{SWF:E:0}

Set TTLS User

Sets the TTLS (Tunnel Transport layer Security) user name, also known as the EAP Outer Name, used to log on to the network.

Only users with administrative privileges can set this command.

Command

ESC{SWF:TU:<sexp>}ESC EZ{COMMIT}{LP}

where:

<sexp> is a valid user name. This value can only be set if EAP Type is set to TTLS.

Example

ESC{SWF:TU:Gandalf}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:TU:1}

Returns this reply if the command is successful:

{SWF:TU:0}

Set Validate

Verifies if the Server Certificate needs to be validated. This setting is only used when Set EAP Type is set to either TTLS or PEAP. The Set Certificate Authority setting should contain a valid CA Certificate that will be used to validate the Server's Certificate.

If a real-time clock (RTC) is not installed, the current time cannot be reliably read and validation does not take into account the current date. Validation may still occur, but less reliably than with an RTC.

Only users with administrative privileges can set this command.

Command

ESC{SWF:V:<sexp>}ESC EZ{COMMIT}{LP}

where values for <sexp> are:

0: Off

1 (default): On

Example

ESC{SWF:V:1}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:V:1}

Returns this reply if the command is successful:

{SWF:V:0}

Set WEP

WEP (Wired Equivalent Privacy) is a security protocol used between two wireless devices. It uses a secret key (40 or 104 bits long) to encrypt data sent using a wireless device. By default, WEP is disabled.

Only users with administrative privileges can set this command.

Command

ESC{SWF:W:<sexp>}ESC EZ{COMMIT}{LP}

where values for <sexp> are:

1: On. When WEP security is enabled, these commands are also set:

- Set WPA = Off (disable WPA)
- Set WPA2 = Off (disable WPA2)

0: Off (default). Disables WPA security for the printer.

Example

ESC{SWF:W:1}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:W:1}

Returns this reply if the command is successful:

{SWF:W:0}

Set WEP Key

Sets the WEP (Wired Equivalent Privacy) key used to select what WEP key is used for security.

Only users with administrative privileges can set this command.

Command

ESC{SWF:K:<sexp>}ESC EZ{COMMIT}{LP}

where the values of <sexp> are:

blank: A blank value indicates that no WEP keys are configured.

1: Selects WEP1 for security. A Set WEPn value must be set for WEP1.

2: Selects WEP2 for security. A Set WEPn value must be set for WEP2.

3: Selects WEP3 for security. A Set WEPn value must be set for WEP3.

4: Selects WEP4 for security. A Set WEPn value must be set for WEP4.

Example

ESC{SWF:K:1}ESC EZ{COMMIT}{LP} sets WEP1 for security

Returns this reply if the command is not successful:

{SWF:K:1}

Returns this reply if the command is successful:

{SWF:K:0}

Set WEPn

Sets the actual WEP (Wired Equivalent Privacy) keys that will be used. The n stands for 1, 2, 3, or 4 or WEP1, WEP2, WEP3, and WEP4, respectively. By default, WEP is disabled, and no keys are configured.

Only users with administrative privileges can set this command.

Command

ESC{SWF:K1:<sexp>}ESC EZ{COMMIT}{LP}

ESC{SWF:K2:<sexp>}ESC EZ{COMMIT}{LP}

ESC{SWF:K3:<sexp>}ESC EZ{COMMIT}{LP}

ESC{SWF:K4:<sexp>}ESC EZ{COMMIT}{LP}

where <sexp> is:

- entered in a hexadecimal notation or in an alphanumerical notation.
- a string that starts with ”0x” (a zero followed by a lowercase x) followed by 10 or 26 characters. These characters are interpreted as a WEP key in hexadecimal notation. Any other value is interpreted as a WEP key in alphanumerical notation.

Retrieval of WEP keys will return an empty string if not configured and ”****” if a value was previously set.

Example 1

ESC{SWF:K1:0x1138170147}
ESC{SWF:K2:Spock}
ESC{SWF:K3:0x123456789abcdef0123456789a}
ESC{SWF:K4:Vulcanologist}
ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:K1:1}

{SWF:K2:1}

{SWF:K3:1}

{SWF:K4:1}

Returns this reply if the command is successful:

{SWF:K1:0}

{SWF:K2:0}

{SWF:K3:0}

{SWF:K4:0}

Example 2

ESC{SWF:K1:}

Returns this reply if the command is not successful:

{SWF:K1:1}

Returns this reply if the command is successful:

{SWF:K1:0}

Set WPA

WPA (Wi-Fi Protected Access) Setting enables WPA security for the printer. The WPA is a subset of the IEEE 802.11i Standard and uses TKIP (Temporal Key Integrity Protocol) for encryption.

Only users with administrative privileges can set this command.

Command

ESC{SWF:W:<sexp>}ESC EZ{COMMIT}{LP}

where the values of <sexp> are:

0: Off

2: On

Example

ESC{SWF:W:2}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:W:1}

Returns this reply if the command is successful:

{SWF:W:0}

Set WPA2

WPA2 (Wi-Fi Protected Access 2) Setting enables WPA2 security for the printer. WPA2 is the Wi-Fi Alliance equivalent implementation of the IEEE 802.11i Standard. This security uses AES (Advanced Encryption Standard) for encryption.

Only users with administrative privileges can set this command.

Command

ESC{SWF:W:<sexp>}ESC EZ{COMMIT}{LP}

where the values of <sexp> are:

0: Off

3: On. Enables WPA2 security for the printer. When WPA2 security is enabled, these commands are also set:

- Set Mode = Infra
- Set WEP = Off (disable WEP)
- Set WEP Key = 0
- Set WPA = Off (disable WPA)
- Set Authentication (Wireless) = Open

Example

ESC{SWF:W:3}ESC EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SWF:W:1}

Returns this reply if the command is successful:

{SWF:W:0}

Transmit WPA Pre-Shared Key

Transmits the WPA_PSK (Pre-Shared Key), also known as Personal Mode for both WPA and WPA2 security. This setting accepts an agreed upon key between wireless devices.

Only users with administrative privileges can set this command.

Command

ESC{SWF:PK:<sexp>}

where:

<sexp> is a valid WPA PSK value.

Example

ESC{SWF:PK:mykey}

Returns this reply if the command is not successful:

{SWF:PK:1}

Returns this reply if the command is successful:

{SWF:PK:0}

CHAPTER 3

HONEYWELL PRINTER COMMANDS

These commands are specific to Intermec printers and allow you to set some of the same commands as Intermec Settings, retrieve printer information, or quit EZ Print:

Allow Messages From Printer

Turns on or off the ability to see error messages the printer generates to alert a user of an error condition. Each error is only sent once from the printer.

Command

ESC{SSC:U:x}

where:

x is:

Y: Turns on the allow messages from printer command.

N (default): Turns off the allow messages from printer command.

Example

This command turns on the allow messages from printer option.

ESC{SSC:U:Y}

Returns this reply if the command is successful:

{SSC:U:0}

Returns this reply if there is an error:

{UST:S:*error condition=X*}

where *error condition* is:

Lid_Open: If Lid_Open=Y, the printer has detected an error condition and cancels any pending print jobs.

Paper_Out: If Paper_Out=Y, the printer has detected an error condition and cancels any pending print jobs.

Voltage:

If Voltage=H, the printer has detected a high voltage condition. No action is required; the printer is just providing status that it has reached full voltage.

If Voltage=L, the printer has detected a low voltage condition. The battery voltage is below the level set with the Set Low Battery Indicator command. Connect the printer to external power to recharge battery.

You can receive several error conditions in the same string. For example, the printer may send a command string in this format:

{UST:S:Lid_Open=Y,Paper_Out=Y,Voltage=H}

Quit ESC/P

Quits the ESC/P language application and enters Fingerprint.

Command

ESC{QUIT}

Restore Factory Defaults

Resets the printer to factory default values. You must follow the Restore Factory Defaults command with the Commit command (ESC EZ{COMMIT}{LP}).

Command

ESC{SDV}ESC

This table lists the default values that are restored when you send this command.

Setting	Default
RS-232 serial port	
Baud rate	115200

Setting	Default
Data bits	8
Parity	None
Stop bits	1
Flow control	Hardware
Bluetooth	
Device name	PR2/PR3-*xxxxxxxxxxx* (where *xxxxxxxxxxx* is the serial number)
Service name	Wireless printer
Class of device	00040680
Discoverable	Yes
Connectable	Yes
Authentication	Off
Encryption	Off
Printer reserve	Disabled
Battery	
Low battery indicator	7.4 V
Allow messages from printer	Off
Dark adjust	100
Media sensitivity	0

Retrieve Firmware Version

Retrieves firmware information from the printer.

Command

ESC{QST:VR}

Example

ESC{QST:VR}

Reply:

{QST:VR:PR2S*NNNNN_MMDDYY*(*Firmware Version*)}

where:

NNNNN is the simulator version.

MMDDYY is the month, day, and year of the simulator build.

Firmware Version is the underlayer firmware version.

Retrieve Job Status

Retrieves the job status of the printer. This command is useful to mark the start and end of a print job.

An application can send:

- this command before starting a report to make sure that there are no pending error conditions.
- the Allow Message From Printer command to turn on unsolicited messages and find out if there are any problems with the printer.

Command

ESC{QST:JB:*F1*,*F2*}

where:

F1 is a four digit job number between 0001 and 9999 (an ASCII string).

F2 turns the Allow Message From Printer command on (Y) or off (N).

Example

ESC{QST:JB:F1,F2}

Reply:

{QST:JB:JN:*xxxx*;CJ:*x*;CN:*xx*;TC:*xxxx*}

where:

Command	Setting	Description
JN	*xxxx*	The four digit job number that corresponds to *F1* in the retrieve command.
CJ	*x*	The current job status: 0 (zero): Complete 1: Still printing 2: Timeout 3: Canceled 4: Out of paper 5: Lid open
CN	*xx*	The number of canceled jobs since the last time this command was sent. Sending this command returns the number of canceled jobs to zero.
TC	*xxxx*	The total number of canceled jobs over the life of the printer.

Retrieve Printer Status

Retrieves the status of the printer.

Command

ESC{QST:PR}

Example

ESC{QST:PR}

Reply:

{QST:PR:E:*x*;L:*x*;P:*x*;B:*x*;H:*x*}

where:

Command	Setting	Description
E	*x*	Error status of the printer: Y: There are errors N: There are no errors
L	*x*	Status of the paper release lever latch: Y: Latched N: Unlatched
P	*x*	Paper present status: Y: Yes N: No
B	*x*	Status of the batteries: Y: Battery has the correct voltage H: Battery is above maximum voltage (8.4 V)* L: Battery is below low battery indicator setting
H	*x*	Status of the printhead temperature: Y: acceptable N: unacceptable

*Minimum voltage is 5.6 V.

Retrieve Sleep and Standby Timer Values

Sets and retrieves the sleep and standby timer values. This command is only supported in Line Print mode.

Command

<ESC>{QST:PW}

Reply

{QST:PW:*n3*,*n4*}

where:

n3: Value for the sleep timer

n4: Value for the standby timer.

Example

This command retrieves the values of the sleep and standby timers. The sleep timer is set for 20 seconds and the standby timer is set for 30 minutes.

<ESC>{QST:PW}

Reply:

{QST:PW:20,30}

Set Dark Adjust

Sets the energy level for the printhead which controls how dark the print appears on the media.

Command

ESC{SSC:E:*F1*,*F2*}

where:

F1: The printhead Manufacturer ID. The printer supports K, S, and R.

F2: Sets the energy level for the printhead:

- 80 (lightest)
- 90
- 100 (default)
- 110
- 120
- 130
- 160 (darkest)

Example

This command sets the dark adjust on the printer to 100.

SC{SSC:E:S,100}

Returns this reply if the command is not successful:

{SSC:E:1}

Returns this reply if the command is successful:

{SSC:E:0}

Set Low Battery Indicator

Sets the voltage at which the low battery indicator turns on.

Command

ESC{SSC:V:*x.x*}

where:

x.x sets the level at which the low battery indicator turns on. Range is 0 to 8.4 V.

Example

This command sets the low battery indicator on the printer to 7.2 V

ESC{SSC:V:7.2}

Returns this reply if the command is not successful:

{SSC:V:1}

Returns this reply if the command is successful:

{SSC:V:0}

Set Media Sensitivity

Sets the sensitivity for the media you are using. Intermec recommends that you use the default setting for media sensitivity.

Command

ESC{SSC:M:*F1*,*F2*}

where:

F1: The printhead Manufacturer ID. The printer supports K, S, and R.

F2: Sets the media sensitivity of the printhead:

- 0: Direct Thermal (default)
- 1: Thermal Transfer

Example

This command sets the media sensitivity to Thermal Transfer.

ESC{SSC:M:S,1}

Returns this reply if the command is not successful:

{SSC:M:1}

Returns this reply if the command is successful:

{SSC:M:0}

Set Print Speed

Set the print speed. Actual printing speed may be different from print speed parameter set inside the printer depending on printing condition and settings. In general, slower printing speed will provide better print quality.

Command

ESC{SSC:PS:*F1*}

where:

F1 sets the print speed. Range is 50 to 75 (default).

Example

This command sets the print speed to 50.

ESC{SSC:PS:50}

Returns this reply if the command is not successful:

{SSC:PS:1}

Returns this reply if the command is successful:

{SSC:PS:0}

Set Sleep and Standby Timers

Sets the sleep and standby timers for the printer. The commands are only applicable in LP mode. The set command must be followed by the commit command, <ESC>EZ{COMMIT}{LP}.

Command

<ESC>{SPW:T:*n1*,*n2*}

where:

n1 is the value (in seconds) for the sleep timer.

n2 is the value (in minutes) for the standby timer.

Example

The command sets the sleep timer to 20 seconds and the standby timer to 30 minutes.

<ESC>{SPW:T:20,30}<ESC>EZ{COMMIT}{LP}

Returns this reply if the command is not successful:

{SPW:T:1}

Returns this reply if the command is successful:

{SPW:T:0}

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