

# **Software Developer's Manual**

**ESC/POS Emulation Guide**

**RJ-2035B/RJ-2055WB/RJ-3035B/RJ-3055WB**

**Version 3.00**

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## Important Notices

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## 1. Introduction

ESC/POS emulation allows RJ Printers to interpret ESC/POS commands. To use this feature, change the printer settings as described in [Section 2](#).

## 2. Printer Setup

To use the ESC/POS commands:

- Update the printer firmware to EZP firmware using the Brother Printer Management Tool (BPM).
- Install the print media and set the printer to Line Mode.

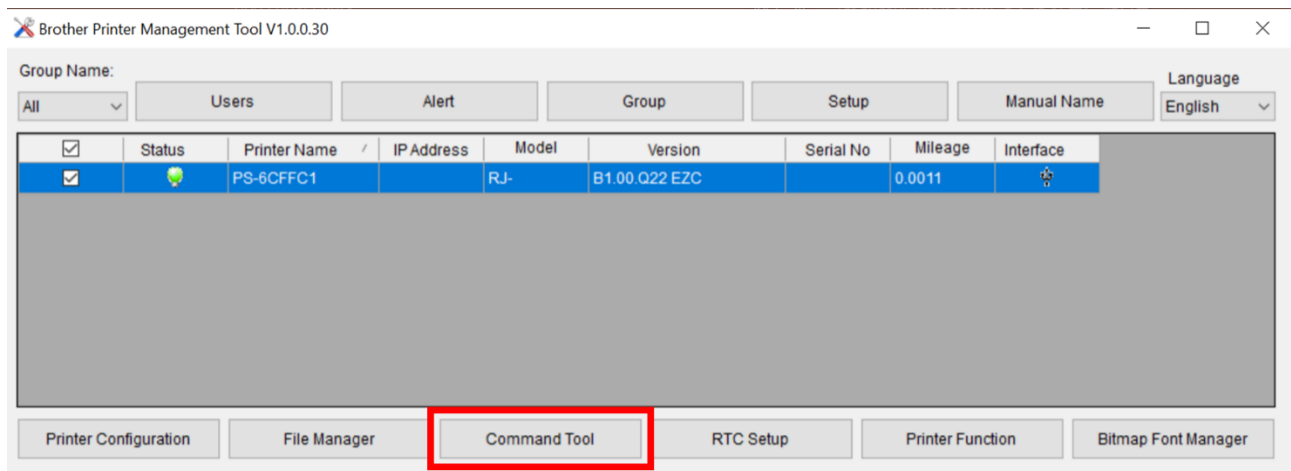
### Note:

You can download both the EZP Firmware update kit and the Brother Management Tool (BPM) from your model's **Downloads** page at [support.brother.com](http://support.brother.com).

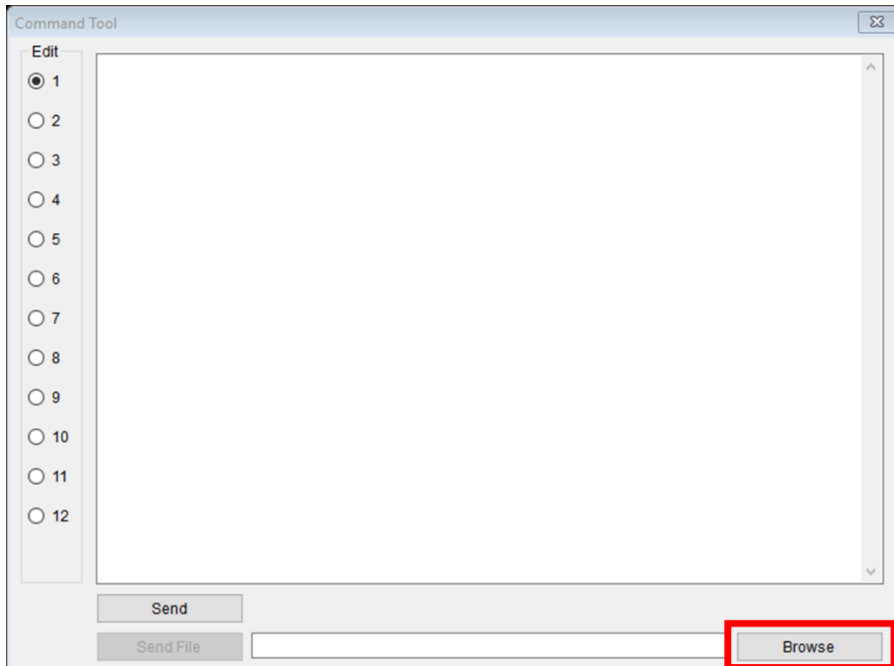
### 2.1 Perform Firmware Update

The EZP firmware supports the use of ESC/POS commands in the Brother Printer Management Tool (BPM). When you update the EZP firmware, the printer automatically enters Line Mode.

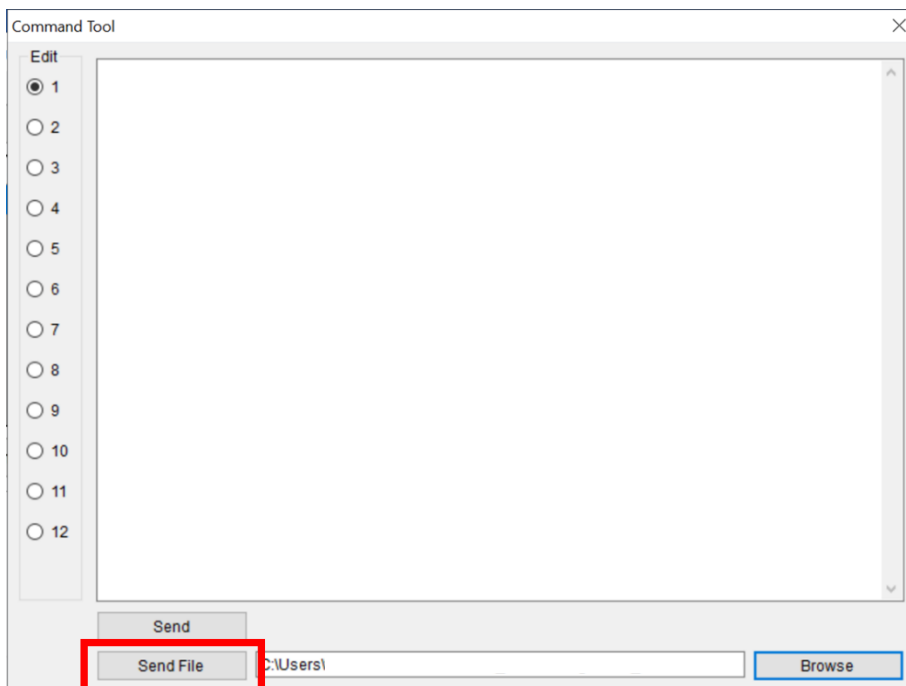
1. Download the EZP Firmware update kit.
2. Run the Brother Printer Management Tool (BPM).
3. Click the **Command Tool** button.



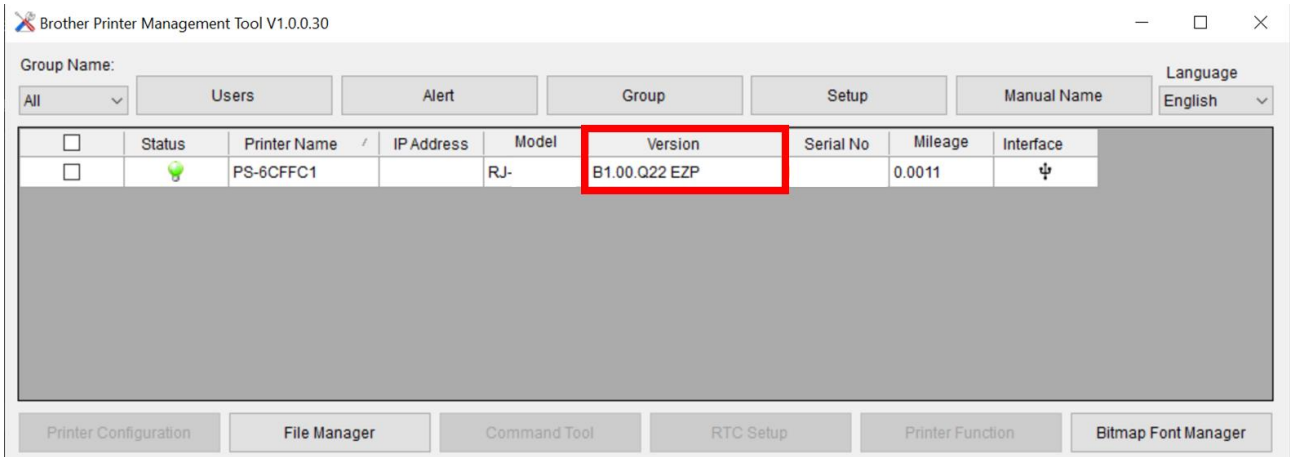
4. Click **Browse** to navigate to and select the EZP firmware file (\*.NEW), and then click **Open**.



5. Click **Send file**. The firmware update starts.



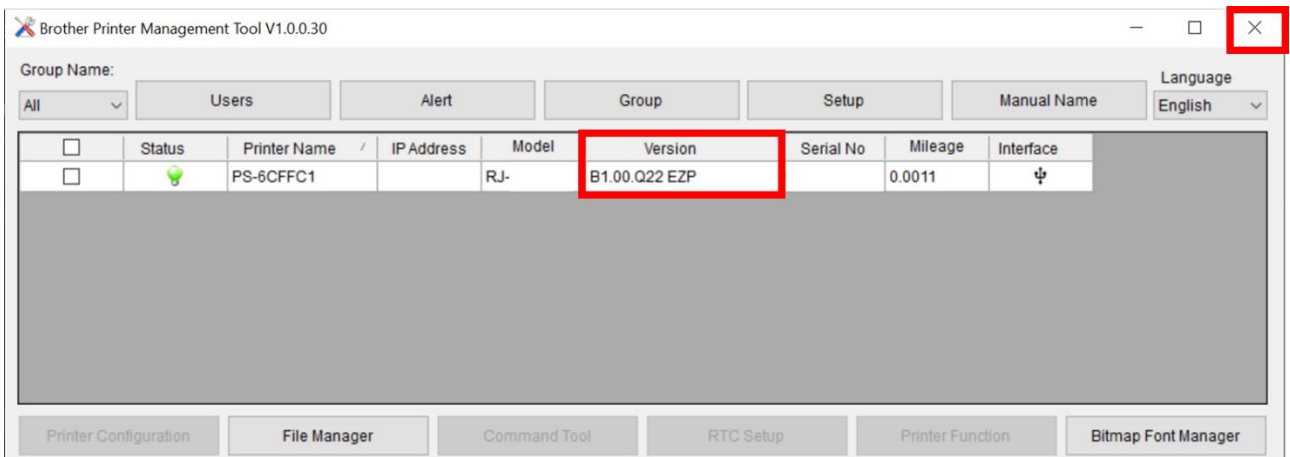
6. Check the **Version** value to confirm that the firmware has been updated.



7. If the printer successfully updated the firmware, it enters Line Mode and starts a test print.



8. To stop the test print, close the BPM. Otherwise the BPM continues to send ESC/POS print commands to the printer.

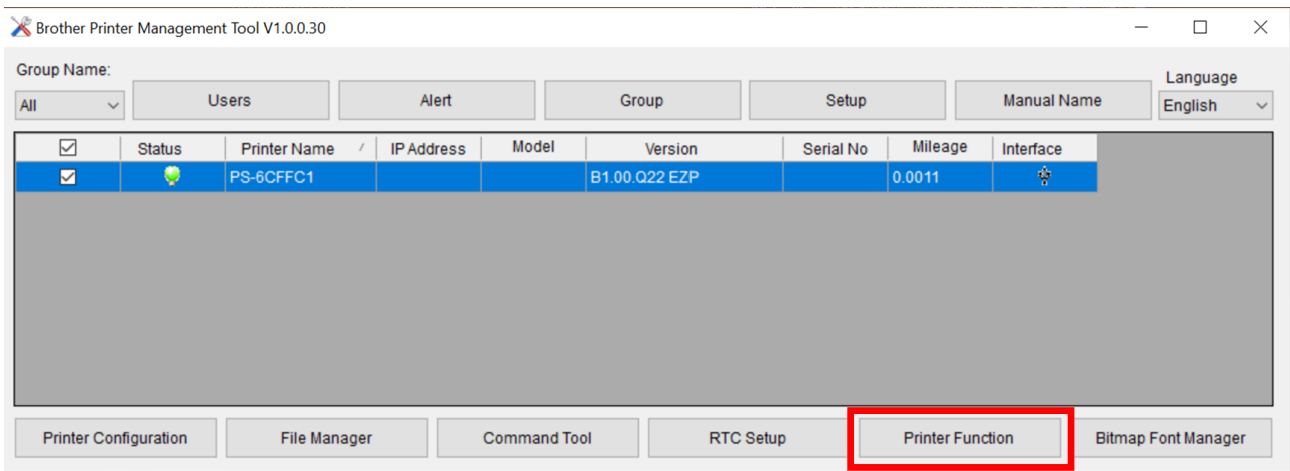




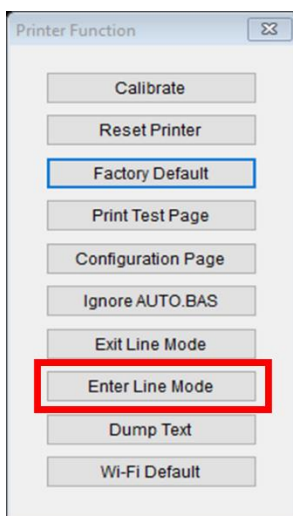
## 2.2 Enter Line Mode

When you update the firmware into EZP, the printer enters Line Mode automatically. However, every time you launch the BPM, the printer automatically exits Line Mode and returns to Page Mode. Make sure to set the printer to Line Mode again before using ESC/POS commands.

1. Run the Brother Printer Management Tool (BPM).
2. Click the **Printer Function** button.



3. Click **Enter Line Mode**.



4. When the printer enters Line Mode, it starts the test print. To stop the test print, close the BPM. Otherwise the BPM continues to send ESC/POS print commands to the printer.



## 2.3 Exit Line Mode

Exit Line Mode and return to Page Mode to change print settings (such as print speed or density) using the BPM.

- The printer automatically exits Line Mode and returns to Page Mode every time you launch the BPM.
- If the BPM is already running in Line Mode, right-click on the BPM home screen and click **Refresh**.
- To resume printing with ESC/POS commands, click **Printer Function** > Enter **Line Mode**. (See [Section 2.2](#))

### 3. ESC/POS Emulation Support Commands

Function	ESC/POS	Description
Initialize	ESC @	Initialize printer
Print	CRLF	Print and carriage return PRINT Print and line feed
	FF	Print and return to Line Mode (in Page Mode)
	ESC J n	Print and feed paper
	ESC d n	Print and feed <i>n</i> lines
	ESC*	Select bit-image mode
Line Spacing	ESC 2	Select default line spacing
	ESC 3 n	Specify line spacing
Print Position	HT	Horizontal tab
	ESC \$ nL nH	Specify absolute horizontal position
	ESC D n1 ...nk NUL	Set horizontal tab positions
	ESC \ nL nH	Specify relative print position
	ESC a n	Specify justification
	GS L nL nH	Specify left margin
Page Mode	ESC FF	Print data in Page Mode
	ESC L	Select Page Mode
	ESC T n	Select print direction in Page Mode
	ESC W n1, n2 ...n8	Specify print area in Page Mode
	GS \$ nL nH	Specify absolute vertical print position in Page Mode
Text Characteristics	ESC SP n	Specify right-side character spacing
	ESC ! n	Select print mode(s)
	ESC – n	Apply/cancel underlining
	ESC E n	Apply/cancel bold style
	ESC I n	Apply/cancel italic style

Function	ESC/POS	Description
	ESC M n	Select character font 0:8x12, 1:12x20
	ESC R n	Select international character set
	ESC t n	Select character code set
	ESC { n	Apply/cancel upside-down printing mode
	GS ! n	Select character size
	GS B n	Apply/Cancel white/black reverse printing mode
Barcode	GS H n	Select HRI character print position
	GS f n	Select HRI character font
	GS h n	Specify barcode height
	GS k m n1 ...nk NUL	Print barcode
	GS w n	Specify barcode width
Two-dimensional Barcode	GS ( k	Set up and print QR Code
	ESC Z	Print QR Code
	GS 'p' 1 model e v mode nl nh [d]k	Print QR Code
	GS Z	Select QR Code
	GS ( B	Special command for ACLAS
Kanji	FS !	Select print mode(s) for Kanji characters
	FS &	Select Kanji character mode
	FS -	Apply/cancel underline mode for Kanji characters
	FS .	Cancel Kanji character mode
	FS C	Select Kanji character code system
	FS S	Specify Kanji character spacing
	FS W	Apply/cancel quadruple-size mode for Kanji characters
Others	ESC = n	Select peripheral device
	GS ( H	Request transmission of response or status

# Appendix: Font Specification

The font specifications compatible with RJ Printer ESC/POS Emulation are as follows:

Built-in Font	Fixed Font	Font A (EPL font 3 : 12 x 20 dots) Font B (EPL font 2 : 10 x 16 dots) Japanese Font (24 x 32 dots)
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