

Software Developer's Manual
P-touch Template Command Reference
PJ-722/723/762/763/763MFi/773
Version 1.00

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Introduction

This material provides the necessary information for directly controlling the templates transferred to PJ-7XX. This information is provided assuming that the user has full understanding of the operating system being used and basic mastery of programming in a developer's environment.

Read the model names that appear in the screens in this manual as the name of your printer.

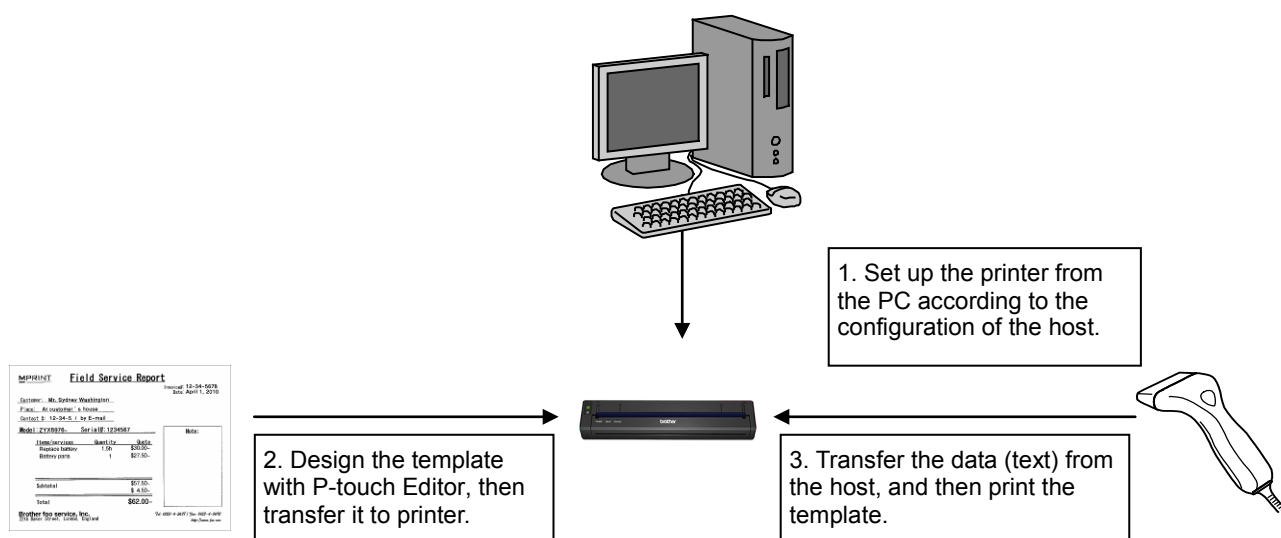
We accept no responsibility for any problems caused by programs that you develop using the information provided in this material, affecting software, data or hardware, including the PJ-7XX, and any problems resulting directly or indirectly from them. Use this material only if you accept these terms.

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What is P-touch Template?

P-touch Template helps the user develop a printing system that connects directly from the host and has following functions:

- transfers the template data from P-touch Editor to the printer (2)
- transfers the ASCII text and binary data from a host to the template in the printer (3)
("Host" includes medias such as barcode readers, smartphones or mobile terminals.)
- prints the transferred data (3)
(See the figure shown below.)



P-touch Template commands consist of a prefix character and a two-character text string.

When the prefix character is sent, the printer begins the analysis of the P-touch Template command, and performs the specified process if the following two-character text string corresponds to a command.

Note

***P-touch Template is not compatible with some hosts.**

***These hosts should have an interface to transfer the data.**

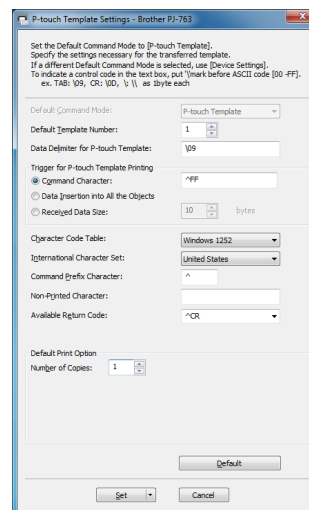
1. Using P-touch Template

(1) Specify the printer settings.

Using the P-touch Template Settings tool, specify the initial printer settings according to the host system environment or the host that the printer is connected to.

(Please refer to “[2. P-touch Template Settings Tool User's Guide](#)” on page 4.)

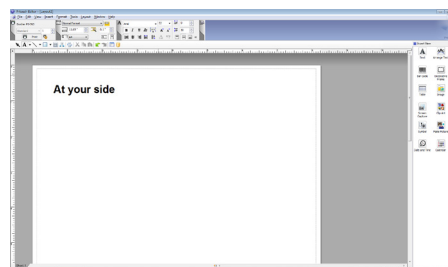
The printer driver must first be installed via a USB connection.



(2) Design the template.

Using P-touch Editor, design the template to be transferred to the printer.

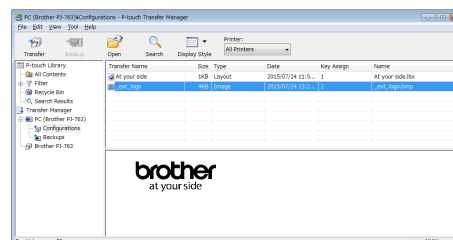
(Please refer to “[4. P-touch Template Limitations](#)” on page 18.)



(3) Transfer the templates.

Using P-touch Transfer Manager, transfer the templates to the printer.

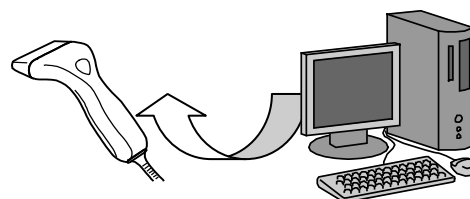
(Please refer to the TD Series Software User's Guide.)



(4) Program using P-touch Template commands.

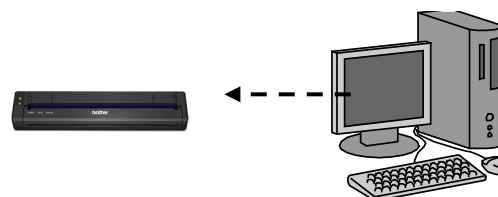
If any special commands are required to control the printer, change the terminal program in accordance with the P-touch Template commands.

(Please refer to “[6. Control Code Lists](#)” on page 31.)

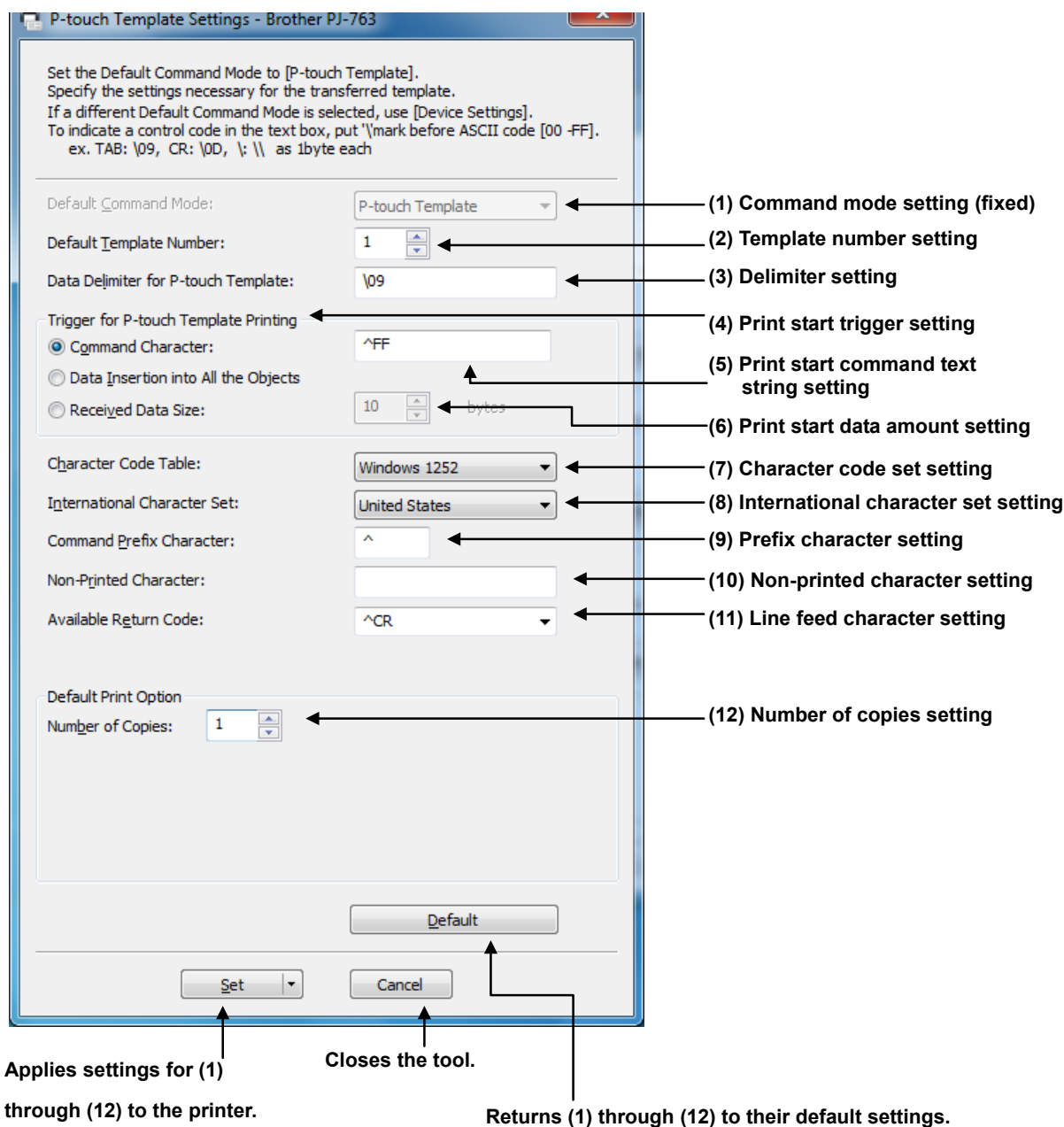


(5) Connect the printer with the host.

Transfer the data such as ASCII text from the host to templates in the printer.



2. P-touch Template Settings Tool User's Guide



(1) Command mode setting

- P-touch Template mode (fixed)

To use P-touch Template, select the P-touch Template mode.

(2) Template number setting

Specify the template number selected as the default when the printer is turned on.

However, if any template has been set to not be transferred to the printer, the number of that template cannot be specified.

(3) Delimiter setting

A delimiter is the symbol used to indicate when to move to the next object in the data that is being sent.

Between 1 and 20 characters can be specified.

(4) Print start trigger setting

Select one of the following three options for the print start trigger.

- Command Character

(Printing starts when the command character specified in (5) is received.)

- Data Insertion into All the Objects

(Printing starts when the delimiter for the last object is received.)

- Received Data Size

(Printing starts when the number of characters specified in (6) is received. However, delimiters are not counted in the number of characters.)

(5) Print start command text string setting

Specify 1 to 20 characters.

(6) Print start data amount setting

The amount of data that must be received before printing can begin can be set between 1 and 999.

(7) Character code set setting

Select one of the following four character code sets. For character code tables, refer to "[Appendix B: Character Code Tables](#)".

- Windows1252
- Windows1250
- Brother standard
- Windows 1251

(8) International character set setting

Select one of the following countries for the character set.

- USA
- France
- Germany
- Britain
- Denmark I
- Sweden
- Italy
- Spain I
- Japan
- Norway
- Denmark II
- Spain II
- Latin America
- South Korea
- Legal

The following 12 codes are switched depending on the country selected from those listed above.

23h 24h 40h 5Bh 5Ch 5Dh 5Eh 60h 7Bh 7Ch 7Dh 7Eh

For the characters that are switched, refer to the "[International character set table](#)" in "Appendix B: Character Code Tables".

(9) Prefix character setting

Change the prefix character code. Specify as a one-character character code.

The prefix character is the code for the first character that identifies commands that can be used in P-touch Template mode.

(10) Non-printed character setting

The characters specified here are not printed when data is received. Specify 1 to 20 characters.

(11) Line feed character setting

The line feed code is used when feeding data to indicate that the following data should be moved to the next line in a text object. One of the following four line feed codes can be selected, or 1 to 20 characters can be specified as the line feed code.

1. ^CR
2. \0D\0A
3. \0A
4. \0D

(12) Number of copies setting

Specify the number of copies. A number between 1 and 99 can be specified.

Others

· ini file

After the **[Set]** button (in the main dialog box or the Communications Settings dialog box) is clicked, the settings are saved when the dialog box is closed.

C:\Documents and Settings\user_account_name\AppData\Roaming\Brother
 \Printer Settings\ptsXX36.ini

Note: A name of file "ptsXX36.ini" varies depending on printers like below.

| | |
|-------------|-------------|
| - PJ-723 | pts3336.ini |
| - PJ-763 | pts3936.ini |
| - PJ-763MFi | pts4136.ini |
| - PJ-773 | pts4236.ini |
| - PJ-722 | pts3636.ini |
| - PJ-762 | pts3836.ini |

Note: A file path above might be different depending on OS.

· Typing text into text boxes (3), (5), (9), (10) and (11)

Characters that can be entered as text can be typed in, and control codes can be entered as ASCII codes (00 to FF) with \ in front of them.

Example

| | |
|------------------------|-------|
| PRINT | PRINT |
| Tab control code | \09 |
| Line feed control code | \0D |
| \ | \\ |

3. Examples for Using Commands

3.1 Example for using P-touch Template

Here is the document that will be made.

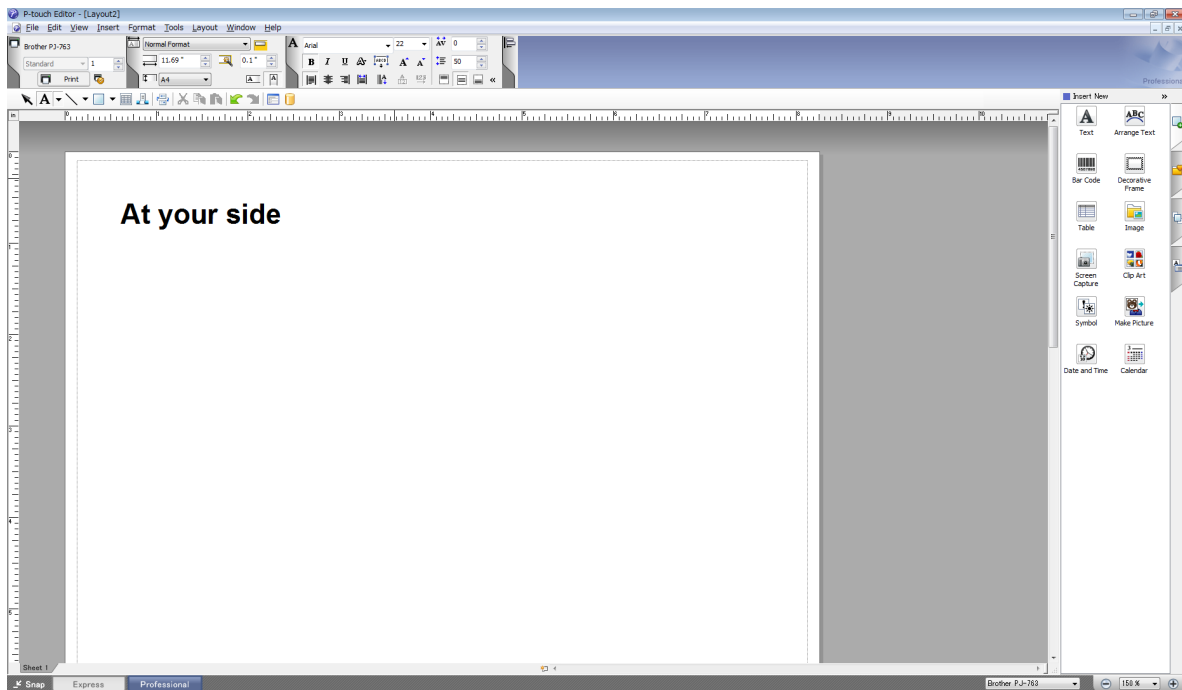


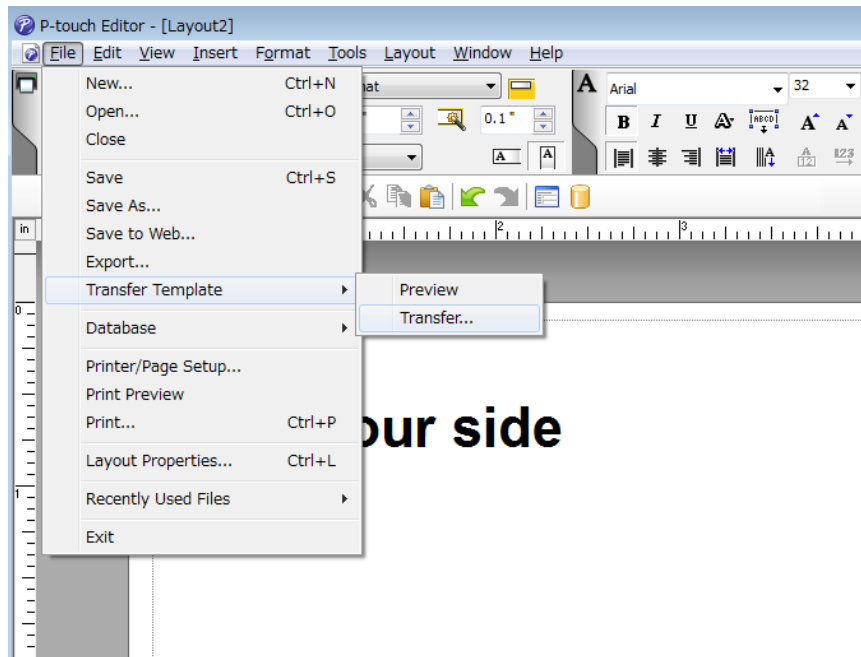
Steps

1. Make a template with P-touch Editor.
2. Transfer the template to Transfer Manager.
3. Transfer the template from Transfer Manager to the printer.
4. Use P-touch Template commands for printing.

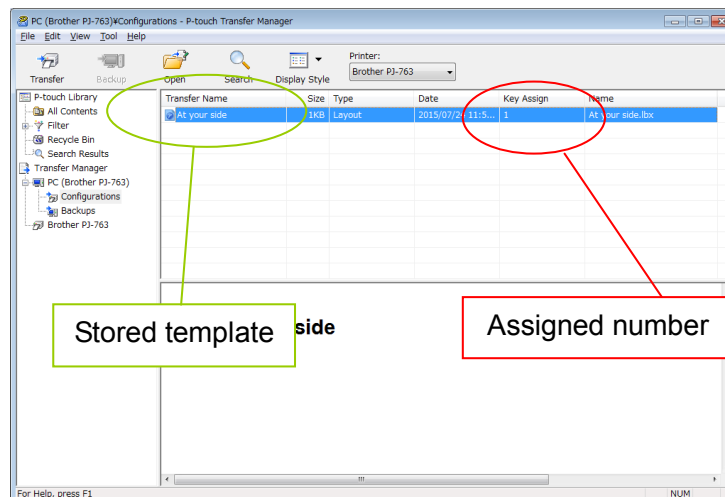
Step 1: Make a template with P-touch Editor.

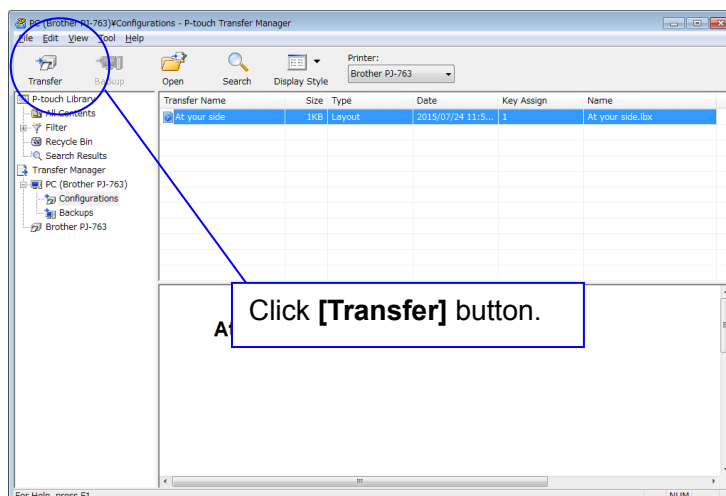
Start the P-touch Editor and make a document.



Step 2: Transfer the template to Transfer Manager.

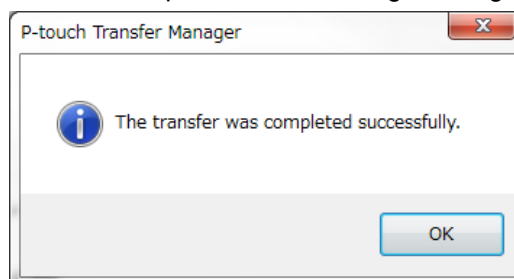
The template sent in step 2 is stored in Transfer Manager, as shown below.



Step 3: Transfer the template from Transfer Manager to the printer.**Note**

Make sure that the printer is turned on and hooked up to the PC with a USB cable before using Transfer Manager. Also, make sure that the printer communication setting is always bidirectional communication when Transfer Manager is used.

When the template is transferred to the printer, the following message appears.



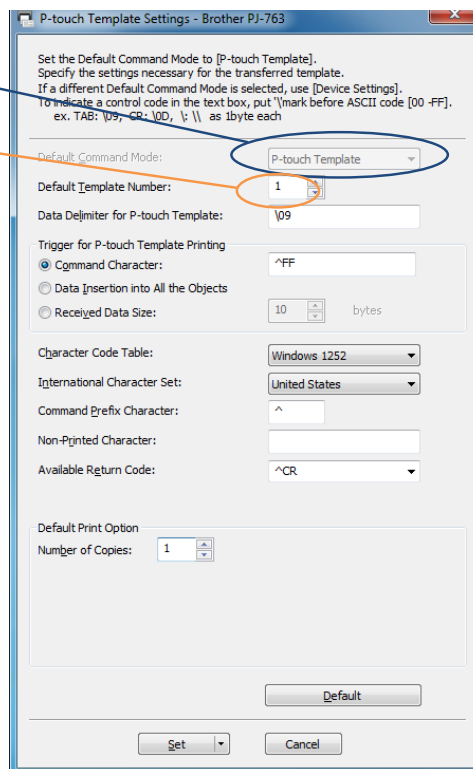
Step 4: Use P-touch Template commands for printing.

When using P-touch Template commands, at least these four commands are required.

However, two out of the four can be set by using the P-touch Template Settings tool.

(1) Select the P-touch Template mode.

(2) Choose the assigned number.



After setting (1) and (2) with the P-touch Template Settings tool, the other two commands must be sent to the printer.

(3) Initialize P-touch Template

^II Initialize

| | | | |
|--------------|----|----|----|
| ASCII: | ^ | I | I |
| Decimal: | 94 | 73 | 73 |
| Hexadecimal: | 5E | 49 | 49 |

Parameters

None

Entered command

^II

(4) Print Start

^FF Start printing

| | | | |
|--------------|----|----|----|
| ASCII: | ^ | F | F |
| Decimal: | 94 | 70 | 70 |
| Hexadecimal: | 5E | 46 | 46 |

Parameters

None

Entered command

^FF

When the printer receives the command above, the document below is printed.



3.2 Example for printing logo/external characters in P-touch Template

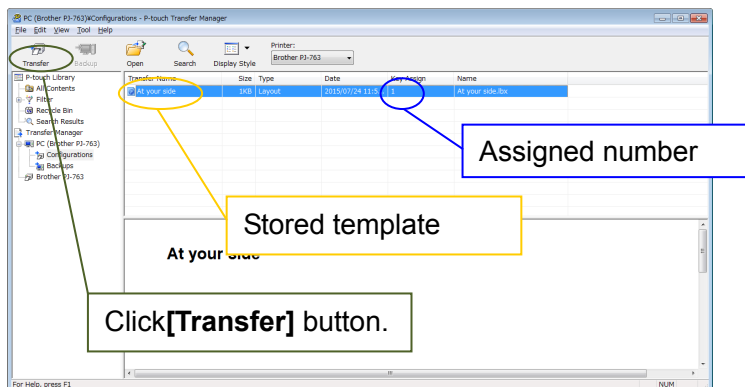
Here is the document to be printed.



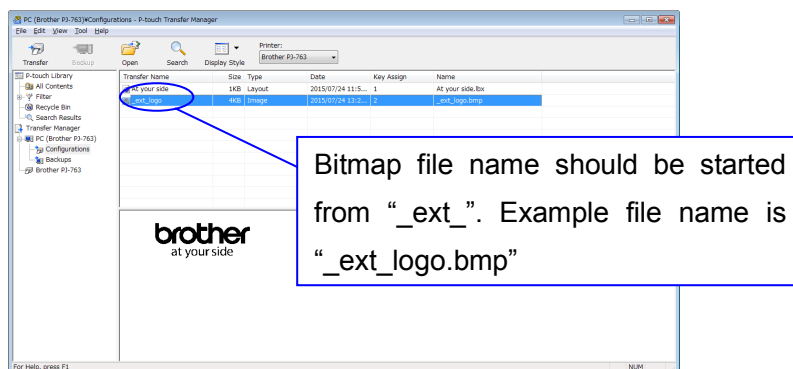
Steps

1. Make a template and transfer it to the printer.
2. Store the logo/external characters as a bitmap file. The file name should be started from “_ext_”, and drag & drop it to Transfer Manager.
3. Transfer the bitmap file from Transfer Manager to the printer.
4. In the P-touch Template Settings tool, select the assigned number for the stored template.
5. With the P-touch Template commands, select the assigned number for the bitmap file.

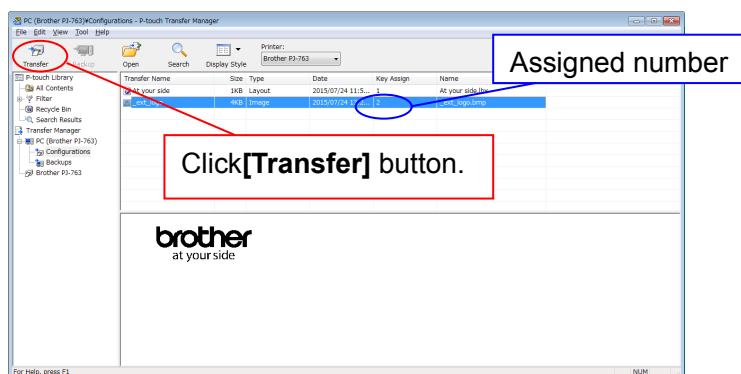
Step 1: Make a template and transfer it to the printer.



Step 2: Store the logo/external characters as a bitmap file. The file name should be started from “_ext_”, and drag & drop it to Transfer Manager.



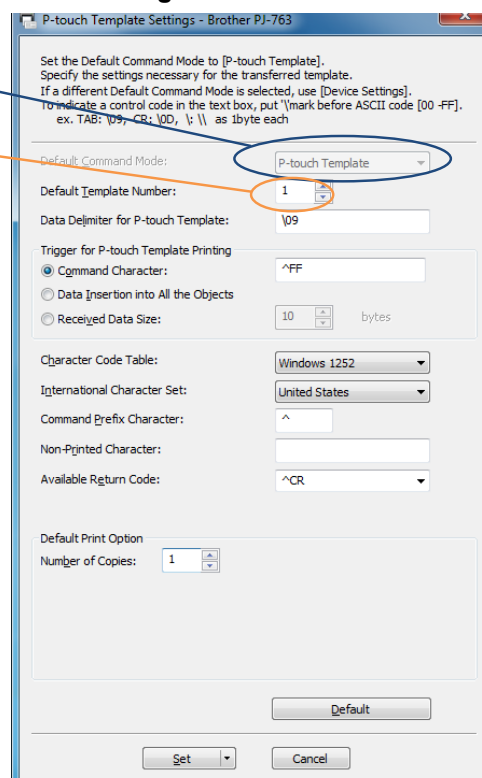
Step 3: Transfer the bitmap file from Transfer Manager to the printer.



Step 4: In the P-touch Template Settings tool, select the assigned number for the stored template.

(1) Select the P-touch Template mode.

(2) Choose the assigned number.



Step 5: With the P-touch Template commands, select the assigned number for the bitmap file.

After using the P-touch Template Settings tool in Step 4, the remaining three commands must be sent to the printer.

(1) Initialize P-touch Template**^II Initialize**

| | | | |
|--------------|----|----|----|
| ASCII: | ^ | I | I |
| Decimal: | 94 | 73 | 73 |
| Hexadecimal: | 5E | 49 | 49 |

Parameters

None

Entered command

^II

(2) Select the bitmap file to be printed.

In order to select the bitmap file, enter a specific character “\” and the value one less than the assigned number for the bitmap file that is shown in Step 3.

For example, if the assigned number for the bitmap file is 2, enter \01 as shown right.

Entered command

\01

(3) Start printing.**^FF Start printing**

| | | | |
|--------------|----|----|----|
| ASCII: | ^ | F | F |
| Decimal: | 94 | 70 | 70 |
| Hexadecimal: | 5E | 46 | 46 |

Parameters

None

Entered command

^FF

When the printer receives the command above, the document below is printed.



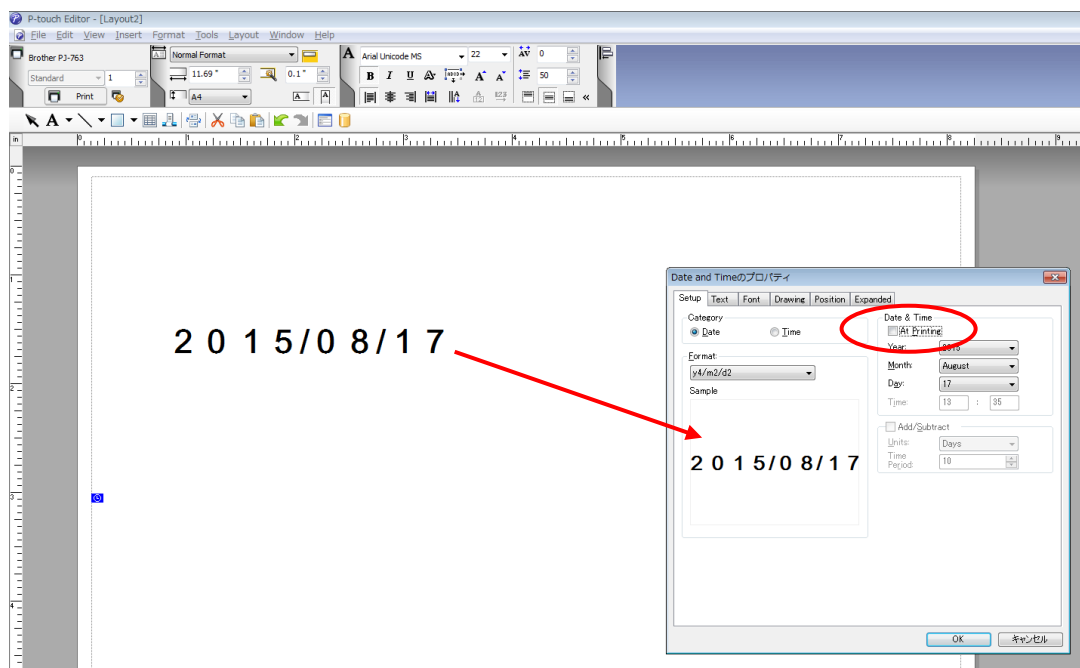
4. P-touch Template Limitations

4.1 Relating to text objects

4.1.1 Font, size, etc.

Please also refer to "[5.2 Relationship between the P-touch Editor settings and the printer image](#)" on page 26

- Fonts specified in P-touch Editor are converted to Helsinki, Letter Gothic or Brussels, depending on the font shape, when the data is sent to the printer.
The font is converted according to the following rules: fixed pitch: Letter Gothic; serif: Brussels; sans serif: Helsinki. With symbol fonts, symbols are converted to text objects if text input mode has been entered, and the font is converted to one of the three described above. If the text input mode has been exited, symbols are converted to image objects and the selected font is not converted.
- Character sizes specified in P-touch Editor are converted to the closest built-in character size when the data is sent to the printer.
- Character sizes specified in P-touch Editor are all made the same size within an object.
- Depending on the language of the computer used for transferring, either the Western European or the Eastern European character set is used for characters within text objects.
- "\ " is used as control character for an external character. When "\ " has to be used as a data, input "\\ ".
- If "At Printing" is selected, a time stamp specified in P-touch Editor is not printed. If "At
- Printing" is not selected, the time stamp is printed with the date and time that the data was created in P-touch Editor.



“At Printing” setting

To cancel the “At Printing” setting for a date/time in P-touch Editor, display the properties for the Date and Time object, and then clear the “At Printing” check box.

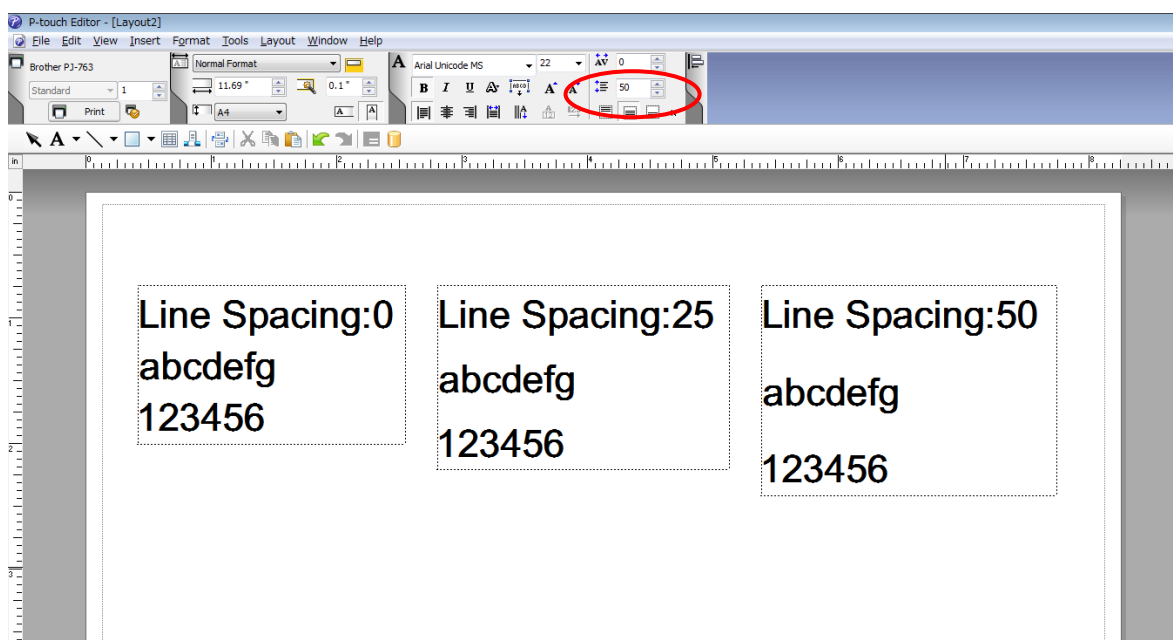
- Horizontal alignment settings (“Justify” or “Equal Length”) specified in P-touch Editor are changed to the left alignment setting.
- The setting for line spacing with a line return specified with the P-touch Editor can be set between 0 and 255 dots.

A negative line spacing setting cannot be used in P-touch Editor. In addition, since there is an upper limit (about 21 mm) for the line width with the printer, a line spacing setting larger than this limit specified in P-touch Editor will not be applied on the printer.

4.1.2 Character alignment

- Horizontal alignment settings (“Justify” or “Equal Length”) specified in P-touch Editor are changed to the left alignment setting.
- The setting for line feed with a line feed specified with the P-touch Editor can be set between 0 and 255 dots.

A negative line spacing setting cannot be used in P-touch Editor. In addition, since there is an upper limit for the line width with the printer, a line spacing setting larger than this limit specified in P-touch Editor will not be applied on the printer.



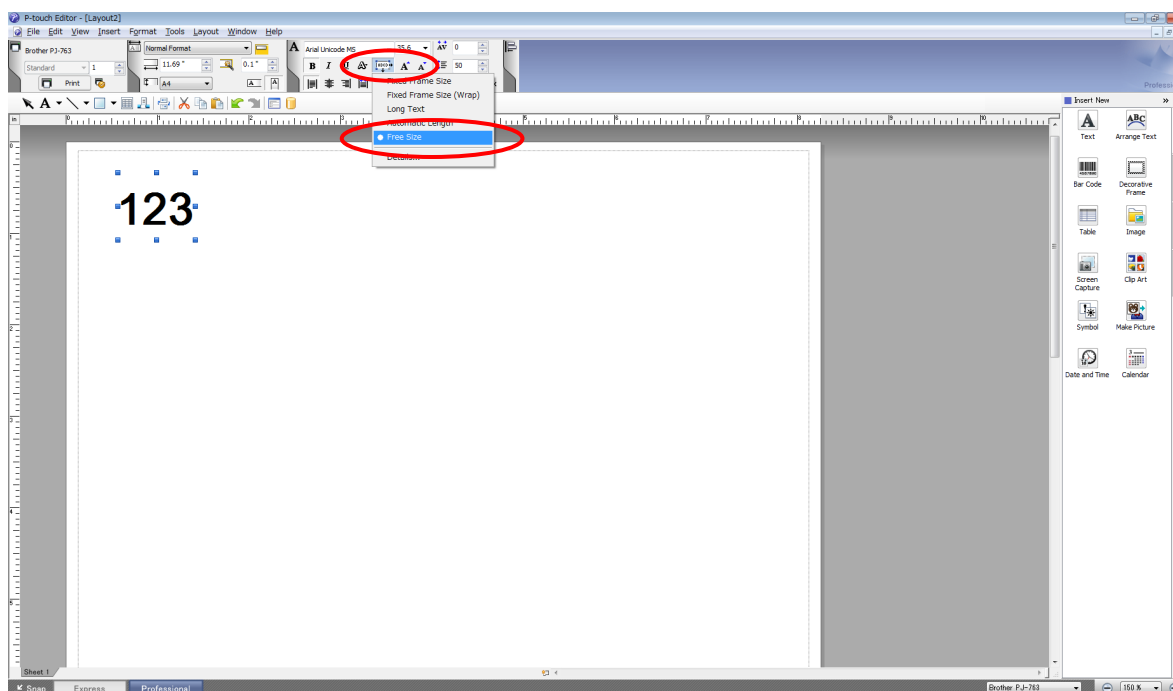
Specifying the line spacing setting in P-touch Editor

4.1.3 Text Layout settings

- Character styles specified in P-touch Editor all become the same style within an object.
- If the “Long text” is selected under “Text Layout” in P-touch Editor, the text is always aligned at top left.
- If the “Long Text” setting is selected under “Text Layout” in P-touch Editor and continuous length tape is used, the print length is increased to fit the text.
- If the “Fixed Frame Size (Wrap)” setting is selected under “Text Layout” in P-touch Editor, the object size does not change, and the text size is reduced.

“Fixed Frame Size (Wrap)” is a setting that was added for inserting long text. Since it is possible that the text size may become extremely small if the wrapping feature is no longer applied, we recommend that “Fixed Frame Size” be selected when die-cut labels or a fixed length is specified in P-touch Editor, or that “Automatic Length” be selected when an automatic media length is specified.

| | |
|------------------|--|
| Shrink to Fit | The text object size is fixed, and the text size is changed depending on the text length. |
| Clip Text | The text object size is fixed, and the text size is fixed. If the text is too long, the text is not printed. |
| Long Text | The text object width is fixed, and the text size is fixed. If the text is too long, the text object height is increased. |
| Automatic Length | The text object height is fixed, and the text size is fixed. If the text is too long, the text object width is increased. |
| Free Size | The text size is fixed. If the text is too long, the text object width is increased. If a new line is started, the text height is increased. |



Specifying a Text Layout setting

Click the button circled in red to display a drop-down list, and then select the desired option.

4.2 Relating to barcodes

4.2.1 Barcodes

- When trying to transfer a template containing a barcode that is not compatible with the printer, an error will occur while transferring and the template cannot be transferred to the printer.

The following barcodes are compatible with the PJ-7XX.

| | |
|-------------|--|
| 1D barcodes | CODE39, ITF(I-2/5), UPC-A, UPC-E, EAN-13, EAN-8, CODABAR, CODE128, GS1-128(UCC/EAN-128) , RSS, POSTNET |
| 2D barcodes | PDF417, QR Code, Data Matrix, MaxiCode, Aztec |

- If data containing characters incompatible with the protocol are fed into the barcode object, that barcode object is not printed.
- The barcode size may differ from that in the print result with P-touch Editor.
- Since CODE128 and GS1-128(UCC/EAN-128) can easily be printed slightly larger, we recommend leaving larger margins when creating templates in P-touch Editor.
- If data fed into a barcode in a template created with P-touch Editor causes an extremely long barcode, the barcode may not be fully printed.
- Do not insert line feed immediately before or immediately after the barcode data. Otherwise, it will be considered as part of the barcode data. In that case, the barcode will be created containing the line feed code, or the barcode will not be printed since data incompatible with the barcode protocol is entered.
- A delimiter or print start text string should be entered immediately after the barcode data.

4.2.2 1D barcodes

- A barcode wider than 22.5 cm will not be printed.
- A 1D barcode taller than 1164 dots is converted to 1164dots.
- The number of characters that can be entered for each protocol is shown below.

| | |
|--------------------------|--|
| CODE39 | 1 to 50 characters (not including “*” on both sides) When feeding data, the asterisks (*) at the beginning and end of the data are skipped. |
| ITF I-2/5 | 1 to 64 characters The bearer bar setting specified in P-touch Editor is invalid. |
| EAN-8 | 7 characters |
| EAN-13 | 12 characters |
| UPC-A | 11 characters |
| UPC-E | 6 characters |
| CODABAR | 3 to 64 characters (with “A”, “B”, “C” or “D” at the beginning and end) |
| CODE128 | 1 to 64 characters |
| GS1-128 (UCC/EAN-128) | 1 to 64 characters |
| RSS-14 | 3 to 15 characters (begins with “01”) |
| RSS Limited | 3 to 15 characters (begins with “01”; third digit is “0” or “1”) |
| RSS Expanded | 1 to 64 numbers or 1 to 40 letters* |
| POSTNET | 5, 9 or 11 characters |

* ISO646 characters can be printed.

<<numbers, letters, spaces, !, ", %, &, ', (,), *, +, ,, -, ., /, :, ;, <, =, >, ? and _>>

When trying to transfer data exceeding the ranges described above, an error will occur while transferring. If the data that is fed does not meet the minimum limit, the barcode is not printed. If the data exceeds the maximum limit, only the data to the maximum limit is applied.

4.2.3 2D barcodes

| | |
|-------------|---|
| QR Code | <p>The version setting for a QR Code specified in P-touch Editor is invalid. The version setting must be turned off.</p> <p>The Structured Append settings specified in P-touch Editor are invalid.</p> |
| PDF417 | <p>Since the error correction levels for PDF417 specified in P-touch Editor are inconsistent with those on the printer, the size of the barcode may change when it is printed with P-touch Template.</p> <p>The Structured Append settings specified in P-touch Editor are invalid.</p> |
| Data Matrix | <p>The Structured Append settings specified in P-touch Editor are invalid.</p> <p>Macro settings specified in P-touch Editor are invalid</p> |
| Maxi Code | <p>The Structured Append settings specified in P-touch Editor are invalid.</p> <p>The barcode is partitioned when too much data is entered.</p> <p>When specifying the country code and service class with P-touch Editor, the number is entered at the beginning if the maximum number of characters is not reached. However, with the printer, the number is entered at the end.</p> <p>Example: "2" is specified.</p> <p>P-touch Editor: "200"; Printer: "002"</p> |
| Aztec | <p>The Remove Character setting specified in P-touch Editor is invalid.</p> <p>When the Number of Parts in the Set Structured Append setting is specified as Auto, the number of appended blocks becomes 2.</p> <p>The Code Spacing and Join Vertically in the Set Structured Append settings specified in P-touch Editor are invalid.</p> |

4.3 Relating to images

- If a template containing overlapping images is transferred with P-touch Editor, all image data will be overlapping. (P-touch Editor displays the image created last on top.)

4.4 Relating to Numbering

- Numbering settings specified in P-touch Editor are invalid.
(The text specified as the default numbering text is printed with P-touch Template.)

Default numbering

No. 100



For the numbering text specified in P-touch Editor and shown above, “100” is the default; therefore, “No. 100” will be printed when printing with the printer.

4.5 Others

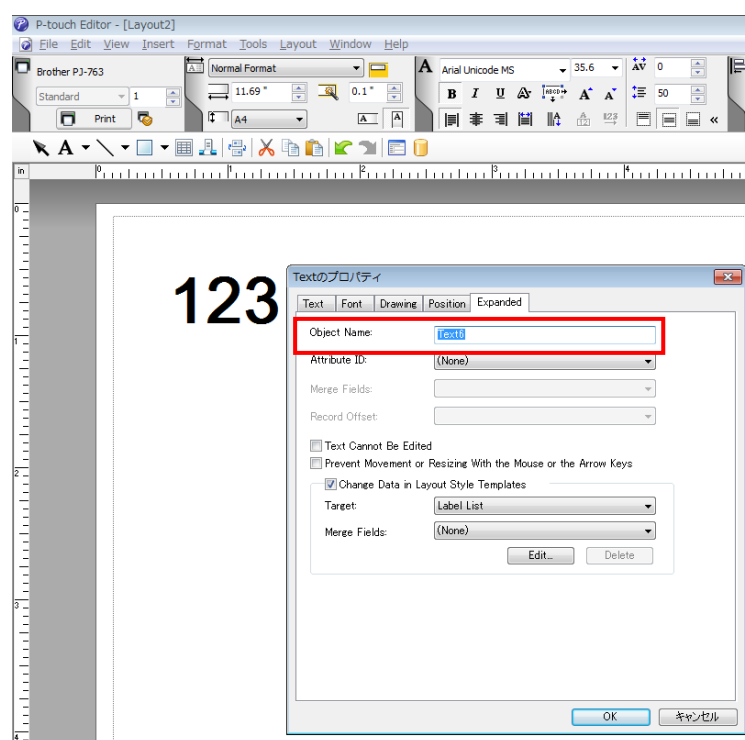
4.5.1 Transferring templates

- A maximum of 255 templates can be transferred. The transfer cannot be completed if the amount of data being transferred exceeds 6 MB.
- A single template can contain a maximum of 255 objects. If the objects exceed 64 KB, an error will occur and the transfer cannot be completed.
- When print data is fed, the command mode should be the P-touch Template mode.
- When a template is transferred to the printer, all values specified with dynamic commands are initialized.
- This is not compatible with split labels.
- After printing from P-touch Editor, the command mode changes to ESC/P Legacy / Raster mode. In order to print a template, select the P-touch Template mode in the P-touch Template Settings tool or, if the previous mode in the P-touch Template Settings tool was the P-touch Template mode, turn the printer off, then on again to enter P-touch Template mode.

4.5.2 About objects in a template

- The line feed codes (0D0A, 0D and 0A) in print data are read, then discarded. However, when specified as special data, such as delimiters, print start text strings or line feed commands, they are applied.
- The order of the objects is determined only by the last four-digit number of the object name. Objects with no numbers in their names will be at the end of the order. If objects have the same number, the order is determined in the following order: text, 1D barcodes, then 2D barcodes. If the objects are of the same type, the object created first is first in the order. We recommend that the numbers indicating the order be added at the end of the object name.

(To specify the name of an object in P-touch Editor, display the properties of the text or barcode object, and then specify the name in the “Object Name” box on the Expanded tab.)



Specifying the object name

5. Precautions

5.1 Notes for printers with Bluetooth interface

If the printer is connected using Bluetooth, the printer may not be ready immediately after the port is opened. When sending print data, wait at least 500 msec after the port has been opened before starting to send the data.

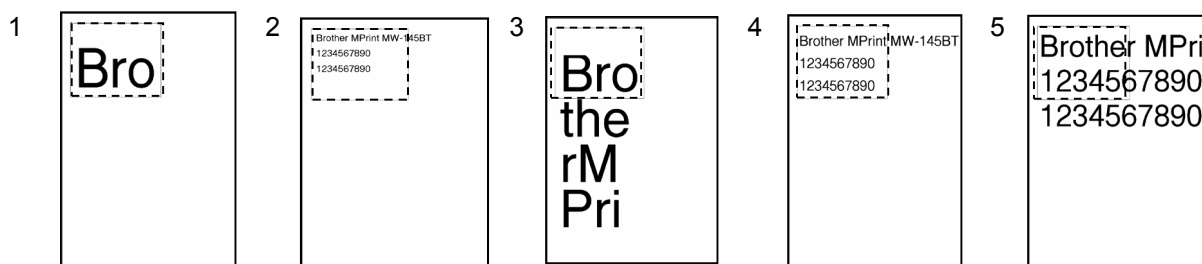
In addition, if the port is continuously opened and closed, for example, when printing multiple pages, wait at least 500 msec after the port is closed before opening the port the next time.

Once the print data for one page has been sent, do not close the Bluetooth port until printing is finished.

5.2 Relationship between the P-touch Editor settings and the printer image

| P-touch Editor setting Text options (Text Layout settings) | | | Printer image | | | | Printed image |
|--|-----------------|-----------|--|--|--|--|-------------------|
| | | | Width | | Height | | |
| Text Layout | Details-Options | Wrap Text | Frame Size | Text Size | Frame Size | Text Size | |
| Fixed Frame Size | Clip Text | | Fixed If the text is too long, the overflow text is not printed. | Fixed | Fixed If the text is too long, the overflow text is not printed. | Fixed | 1 (See below.) |
| | Shrink to Fit | | Fixed If the text is too long, even with the minimum text size, the overflow text is printed outside the frame. | Auto The text is automatically maximized to fit the frame size. | Fixed If the text is too long, even with the minimum text size, the overflow text is printed outside the frame. | Auto The text is automatically maximized to fit the frame size. | 2 (See below.) |
| | Clip Text | Selected | | | | | |
| | Shrink to Fit | Selected | | | | | |
| Fixed Frame Size (Wrap) | - | | | | | | |
| Long Text | - | | Fixed The overflow text is automatically sent to the new line. | Fixed | Even the overflow text is printed outside the frame. | Fixed | 3 (See below.) |
| Automatic Length | - | | Even the overflow text is printed outside the frame. | Fixed | Fixed If the text is too long, even with the minimum text size, the overflow text is printed outside the frame. | Auto The text is automatically maximized to fit the frame size. | 4 (See below.) |
| Free Size | - | | Even the overflow text is printed outside the frame. | Fixed | Even the overflow text is printed outside the frame. | Fixed | 5 (See below.) |

Printed image



5.3 Making a template in order to save time before starting to print

- Perform the following operation to convert permanent objects into images.
 - In the **Text Properties** dialog box, select the **Expanded** tab, and then select the “**Text Cannot Be Edited**” check box.
 - If the **Expanded** tab of the **Text Properties** dialog box is not displayed, click [**Options**] on the **Tools** menu, and then select the “**Display Expanded Tabs of Object Properties**” check box on the **General** tab.
- Specify the text options (Text Layout settings) so that the text size is fixed.

6. Control Code Lists

6.1 Setting and retrieving commands for P-touch Template mode

| ASCII Code | Binary Code | Static/Dynamic | Description |
|------------|-------------|----------------|--|
| ^PT | 5E 50 54 | Dynamic | Select print start trigger |
| ^FF | 5E 46 46 | | Start printing |
| ^PS | 5E 50 53 | Dynamic | Specify print start command text string |
| ^PC | 5E 50 43 | Dynamic | Specify print start received character count |
| ^SS | 5E 53 53 | Dynamic | Specify delimiter |
| ^TS | 5E 54 53 | Dynamic | Select template |
| ^LS | 5E 4C 53 | Dynamic | Specify line spacing with line feed |
| ^CC | 5E 43 43 | Dynamic | Change prefix character |
| ^RC | 5E 52 43 | Dynamic | Specify line feed command text string |
| ^CN | 5E 43 4E | Dynamic | Specify number of copies |
| ^QV | 5E 51 56 | Dynamic | Specify QR Code version |
| ^FC | 5E 46 43 | Dynamic | FNC1 replacement setting |
| ^II | 5E 49 49 | | Initialize |
| ^OP | 5E 4F 50 | | Perform printer operation (feed) |
| ^SR | 5E 53 52 | | Status request |
| ^VR | 5E 56 52 | | Retrieve version information |
| ^CR | 5E 43 52 | | Line feed in object |
| ^OS | 5E 4F 53 | | Select object (object number) |
| ^ON | 5E 4F 4E | | Select object (object name) |
| ^DI | 5E 44 49 | | Direct insert object |
| ESC ia | 1B 69 61 | Dynamic | Select command mode |

Note

- * The commands listed above must be used in P-touch Template mode.
- * These commands (except ESC ia) cannot be used in ESC/P Legacy / Raster mode or ESC/P Brother mode.
- * With dynamic commands, settings specified with a command are temporarily saved and applied until the printer is turned off.

6.2 Setting and retrieving commands for ESC/P Legacy / Raster mode

| ASCII Code | Binary Code | Static/Dynamic | Description |
|------------|----------------|----------------|--|
| ESC iXT2 | 1B 69 58 54 32 | Static | Select print start trigger |
| ESC iXP2 | 1B 69 58 50 32 | Static | Specify print start command text string |
| ESC iXr2 | 1B 69 58 72 32 | Static | Specify print start received character count |
| ESC iXD2 | 1B 69 58 44 32 | Static | Specify delimiter |
| ESC iXa2 | 1B 69 58 61 32 | Static | Specify non-printed text strings |
| ESC iXi2 | 1B 69 58 69 32 | Static | Select command mode |
| ESC iXn2 | 1B 69 58 6E 32 | Static | Select template |
| ESC iXf2 | 1B 69 58 66 32 | Static | Change prefix character |
| ESC iXm2 | 1B 69 58 6D 32 | Static | Select character code set |
| ESC iXj2 | 1B 69 58 6A 32 | Static | Select international character set |
| ESC iXR2 | 1B 69 58 52 32 | Static | Specify line feed command text string |
| ESC iXC2 | 1B 69 58 43 32 | Static | Specify number of copies |
| ESC iXF2 | 1B 69 58 46 32 | Static | FNC1 replacement setting |
| ESC iXE2 | 1B 69 58 45 32 | Static | Specify barcode margin setting |
| ESC iXh2 | 1B 69 58 68 32 | Static | Specify rotated print |
| ESC iXT1 | 1B 69 58 54 31 | | Retrieve print start trigger setting |
| ESC iXP1 | 1B 69 58 50 31 | | Retrieve print start command setting text string |
| ESC iXr1 | 1B 69 58 72 31 | | Retrieve print start received character count |
| ESC iXD1 | 1B 69 58 44 31 | | Retrieve delimiter |
| ESC iXa1 | 1B 69 58 61 31 | | Retrieve non-printed text strings |
| ESC iXi1 | 1B 69 58 69 31 | | Retrieve command mode setting |
| ESC iXn1 | 1B 69 58 6E 31 | | Retrieve number of selected template |
| ESC iXm1 | 1B 69 58 6D 31 | | Retrieve character code set setting |
| ESC iXj1 | 1B 69 58 6A 31 | | Retrieve international character set setting |
| ESC iXf1 | 1B 69 58 66 31 | | Retrieve prefix character |
| ESC iXR1 | 1B 69 58 52 31 | | Retrieve line feed command setting text string |
| ESC iXC1 | 1B 69 58 43 31 | | Retrieve number of copies setting |
| ESC iXF1 | 1B 69 58 46 31 | | Retrieve FNC1 replacement setting |
| ESC iXE1 | 1B 69 58 45 31 | | Retrieve barcode margin setting |
| ESC iXh1 | 1B 69 58 68 31 | | Retrieve rotated print setting |

Note

* The commands listed above must be used in ESC/P Legacy / Raster mode or ESC/P Brother mode.

* These commands cannot be used in P-touch Template mode.

* With static commands, settings specified with a command are saved and stored in the memory.

7. Control Command Details

^PT **Select print start trigger**

| | | | | |
|--------------|----|----|----|----|
| ASCII: | ^ | P | T | n |
| Decimal: | 94 | 80 | 84 | nd |
| Hexadecimal: | 5E | 50 | 54 | nh |

Parameters

1≤n≤3

Description

- Selects the type of print start trigger.
 - n=1: When the specified text string is received (default)
 - n=2: When all objects are filled
(Prints with the delimiter at the end of the data.)
 - n=3: When the specified number of characters is received
(not including delimiters)
- This command is a dynamic command.

Remarks

- Invalid if n is a value other than 1 through 3

Example

- When the print start trigger is “when all objects are filled”:

```
^ P T 2
(5Eh 50h 54h 32h)
```

^FF Start printing

| | | | |
|--------------|----|----|----|
| ASCII: | ^ | F | F |
| Decimal: | 94 | 70 | 70 |
| Hexadecimal: | 5E | 46 | 46 |

Parameters

None

Description

- Starts printing.
- However, the print start trigger must be “when the specified text string is received”.
(Refer to “^PT” and “ESC iXT2”.)
- The text string for the print start command can be changed.
(Refer to “^PS” and “ESC iXP2”.)

Example

- To print template number 3:

^ T S 0 0 3 ^ F F
(5Eh 54h 53h 30h 30h 33h 5Eh 46h 46h)

^PS Specify print start command text string

| | | | | | | |
|--------------|----|----|----|-----|-----|-------|
| ASCII: | ^ | P | S | n1 | n2 | data |
| Decimal: | 94 | 80 | 83 | nd1 | nd2 | datad |
| Hexadecimal: | 5E | 50 | 53 | nh1 | nh2 | datah |

Parameters

$0 \leq n1 \leq 2$

$0 \leq n2 \leq 9$

$00h \leq datah \leq FFh$

Description

- Specifies the text string for the print start command.
 (n1*10)+n2: Length of the text string (can be set between 1 and 20)
 data: Text string (The maximum number of characters that can be set is 20 characters (bytes).)
- The default text string for the print start command is “^FF”.
- This command is a dynamic command.

Remarks

- Invalid if more than 20 characters have been specified

Example

- To change the text string for the print start command to “START”:
 Since the text string to be specified (data), “START”, contains 5 characters, n1=0 and n2=5. Therefore, the command will be as follows.

^ P S 0 5 S T A R T
 (5Eh 50h 53h 30h 35h 53h 54h 41h 52h 54h)

^PC Specify print start received character count

| | | | | | | |
|--------------|----|----|----|-----|-----|-----|
| ASCII: | ^ | P | C | n1 | n2 | n3 |
| Decimal: | 94 | 80 | 67 | nd1 | nd2 | nd3 |
| Hexadecimal: | 5E | 50 | 43 | nh1 | nh2 | nh3 |

Parameters
 $0 \leq n1 \leq 9$
 $0 \leq n2 \leq 9$
 $0 \leq n3 \leq 9$
Description

- Specifies the number of characters to be received in order to start printing.
($n1 \times 100 + n2 \times 10 + n3$): Print start received character count (bytes) (1 to 999)
- The default print start received character count is 10.
- This command is a dynamic command.

Example

- To change the print start received character count to 100 characters:

Since $n1=1$, $n2=0$ and $n3=0$, the command will be as follows.

```
^ P C 1 0 0
(5Eh 50h 43h 31h 30h 30h)
```

^SS Specify delimiter

| | | | | | | |
|--------------|----|----|----|-----|-----|-------|
| ASCII: | ^ | S | S | n1 | n2 | data |
| Decimal: | 94 | 83 | 83 | nd1 | nd2 | datad |
| Hexadecimal: | 5E | 53 | 53 | nh1 | nh2 | datah |

Parameters

$0 \leq n1 \leq 2$

$0 \leq n2 \leq 9$

$00h \leq datah \leq FFh$

Description

- The delimiter is used to indicate when to move to the next object in data that is being sent.
- Specifies the text string for the delimiter.
 (n1*10)+n2: Length of the text string (between 1 and 20)
 data: Text string (The maximum number of characters that can be set is 20 characters (bytes).)
- The default text string for the delimiter is "09h" (Tab code).
 A text string that will not appear in the print data should be specified.
- This command is a dynamic command.

Remarks

- Invalid if more than 20 characters have been specified

Example

- To change the delimiter to "," (2Ch):
 Since the text string contains one character, n1=0 and n2=1. In addition, with the text string (datah) ",", (2Ch), the command will be as follows.

```
^ S S 0 1 ,  
(5Eh 53h 53h 30h 31h 2Ch)
```

^TS Select template

| | | | | | | |
|--------------|----|----|----|-----|-----|-----|
| ASCII: | ^ | T | S | n1 | n2 | n3 |
| Decimal: | 94 | 84 | 83 | nd1 | nd2 | nd3 |
| Hexadecimal: | 5E | 54 | 53 | nh1 | nh2 | nh3 |

Parameters

n1: 0,1,2

0≤n2≤9

0≤n3≤9

Description

- Specifies the number of the template selected from the printer.
(n1*100+(n2*10)+n3: Template number (1 to 255))
- The default selection number is 1.
- This command is a dynamic command.

Remarks

- The template numbers that can be set are between 1 and 99.
This command becomes invalid if any other value has been specified or if the number that has been specified is for a template not transferred to the printer.

Example

- To select template number 99:
Since n2=9 and n3=9, the command will be as follows.

^ T S 0 9 9
(5Eh 54h 53h 30h 39h 39h)

^LS Specify line spacing with line feed

| | | | | | | |
|--------------|----|----|----|-----|-----|-----|
| ASCII: | ^ | L | S | n1 | n2 | n3 |
| Decimal: | 94 | 76 | 83 | nd1 | nd2 | nd3 |
| Hexadecimal: | 5E | 4C | 53 | nh1 | nh2 | nh3 |

Parameters

0≤n1≤2

0≤n2≤9

0≤n3≤9

Description

- Specifies the number of dots for the line spacing when a line feed is entered.
(n1*100)+(n2*10)+n3: Number of dots for the line spacing (0 to 255)
- The default number of dots for the line spacing when a line feed is entered is the number of dots determined when the template is created in P-touch Editor.
- This command is a dynamic command.

Remarks

- The number of dots for the line spacing can be between 0 and 255. This command becomes invalid if any other value has been specified.

Example

- To set the line spacing to 10 dots:

^ L S 0 1 0
(5Eh 4Ch 53h 30h 31h 30h)

^CC Change prefix character

| | | | | |
|--------------|----|----|----|----|
| ASCII: | ^ | C | C | n |
| Decimal: | 94 | 67 | 67 | nd |
| Hexadecimal: | 5E | 43 | 43 | nh |

Parameters

00h≤nh≤FFh

Description

- Changes the prefix character code.
n: Character code
- The default text string for the prefix character is “^”.
- This command is a dynamic command.

Example

- To change the prefix character from “^” to “_”:

^ C C 5Fh
(5Eh 43h 43h 5Fh) (5Fh stands for “_” in ASCII code)

- However, if the printer is later not turned off, then on again, the prefix character remains set to “_”, and the initialize command, for example, will be “_II” instead of “^II”.

^RC Specify line feed command text string

| | | | | | | |
|--------------|----|----|----|-----|-----|-------|
| ASCII: | ^ | R | C | n1 | n2 | data |
| Decimal: | 94 | 82 | 67 | nd1 | nd2 | datad |
| Hexadecimal: | 5E | 52 | 43 | nh1 | nh2 | datah |

Parameters

$0 \leq n1 \leq 2$

$0 \leq n2 \leq 9$

$00h \leq datah \leq FFh$

Description

- Specifies the text string for the line feed command.
(n1*10)+n2: Length of the text string (can be set between 1 and 20)
data: Text string (The maximum number of characters that can be set is 20 characters (bytes).)
- The default text string for the line feed command is “^CR”.
- This command is a dynamic command.

Remarks

- Invalid if more than 20 characters have been specified

Example

- To change the text string for the line feed command to “0Dh 0Ah”:
Since the text string to be specified (data) contains 2 characters, n1=0 and n2=2. Therefore, the command will be as follows.

^ R C 0 2 0Dh 0Ah
(5Eh 52h 43h 30h 32h 0Dh 0Ah)

^CN Specify number of copies

| | | | | | | |
|--------------|----|----|----|-----|-----|-----|
| ASCII: | ^ | C | N | n1 | n2 | n3 |
| Decimal: | 94 | 67 | 78 | nd1 | nd2 | nd3 |
| Hexadecimal: | 5E | 43 | 4E | nh1 | nh2 | nh3 |

Parameters

$0 \leq n1 \leq 9$

$0 \leq n2 \leq 9$

$0 \leq n3 \leq 9$

Description

- Specifies the number of copies to be printed.
($n1 \times 100$) + ($n2 \times 10$) + $n3$: Number of copies (bytes) (1 to 999)
- The default number of copies is 1.
- This command is a dynamic command.

Remarks

- When printing is finished, the number of copies specified with this command returns to the number of copies (static value) specified from the printer.

Example

- To change the number of copies to 100:
Since $n1=1$, $n2=0$ and $n3=0$, the command will be as follows.

```
^ C N 1 0 0
(5Eh 43h 4Eh 31h 30h 30h)
```

^QV Specify QR Code version

| | | | | | |
|--------------|----|----|----|-----|-----|
| ASCII: | ^ | Q | V | n1 | n2 |
| Decimal: | 94 | 81 | 86 | nd1 | nd2 |
| Hexadecimal: | 5E | 51 | 56 | nh1 | nh2 |

Parameters
 $0 \leq n1 \leq 4$
 $0 \leq n2 \leq 9$
Description

- Specifies the QR Code version.
($n1 \times 10 + n2$): Version number (between 0 and 40)
- The default QR Code version is 0.
- This command becomes invalid if a value other than those that can be set (between 0 and 40) has been specified.
- This command is a dynamic command.

Example

- To change the version to 10:

Since $n1=1$ and $n2=0$, the command will be as follows.

```
^ Q V 1 0
(5Eh 51h 56h 31h 30h)
```


^FC FNC1 replacement setting

| | | | | |
|--------------|----|----|----|----|
| ASCII: | ^ | F | C | n |
| Decimal: | 94 | 70 | 67 | nd |
| Hexadecimal: | 5E | 46 | 43 | nh |

Parameters

0≤n≤1

Description

- Selects whether or not GS codes, which are included in barcode protocols such as GS1-128 (UCC/EAN-128), are replaced with FNC1 codes.
n: FNC1 replacement setting
(ON: 1; OFF: 0 (default))
- This command is a dynamic command.

Remarks

- Invalid if n is a value other than 1 or 0

Example

- To disable FNC1 replacement:

Since FNC1 replacement will be disabled, n=0. Therefore, the command will be as follows.

^ F C 0
(5Eh 46h 43h 30h)

^II Initialize

| | | | |
|--------------|----|----|----|
| ASCII: | ^ | I | I |
| Decimal: | 94 | 73 | 73 |
| Hexadecimal: | 5E | 49 | 49 |

Parameters

None

Description

- Reverts all dynamic settings to the printer settings.
 - (1) Print start trigger setting
 - (2) Print start command text string
 - (3) Print start received character count
 - (4) Delimiter
 - (5) Number of selected template
 - (6) Machine settings (cut options)
 - (7) Line spacing with line feed
 - (8) Prefix character
 - (9) Number of copies setting
 - (10) QR Code version setting
 - (11) Line feed command text string
 - (12) FNC1 replacement setting

^OP Perform printer operation (feed)

| | | | | |
|--------------|----|----|----|----|
| ASCII: | ^ | O | P | n |
| Decimal: | 94 | 79 | 80 | nd |
| Hexadecimal: | 5E | 4F | 50 | nh |

Parameters

n: 0 (Fixed)

Description

- Causes the printer to perform a feed operation.

Example

- To specify that the printer performs a feed operation:

| |
|-------------------|
| ^ O P 0 |
| (5Eh 4Fh 50h 30h) |

^SR Status request

| | | | |
|--------------|----|----|----|
| ASCII: | ^ | S | R |
| Decimal: | 94 | 83 | 82 |
| Hexadecimal: | 5E | 53 | 52 |

Parameters

None

Description

- Returns the printer status.

The printer status consists of 32 bytes.

| Number | Offset | Size | Name | Value/Reference |
|--------|--------|------|-----------------------------------|---|
| 1 | 0 | 1 | Print head mark | Fixed at 80h |
| 2 | 1 | 1 | Size | Fixed at 20h |
| 3 | 2 | 1 | Brother code | Fixed at "B" (42h) |
| 4 | 3 | 1 | Series code | Fixed at "6" (36h) |
| 5 | 4 | 1 | Model code | PJ-722: Fixed at "6" (36h) PJ-723: Fixed at "7" (37h) PJ-762: Fixed at "8" (38h) PJ-763: Fixed at "9" (39h) PJ-763MFi: Fixed at "A" (41h) PJ-773: Fixed at "B" (42h) |
| 6 | 5 | 1 | Country code | Fixed at "0" (30h) |
| 7 | 6 | 1 | Battery level information | Refer to table (5) below. |
| 8 | 7 | 1 | Not used | Fixed at 00h |
| 9 | 8 | 1 | Error information 1 | Refer to table (1) below. |
| 10 | 9 | 1 | Error information 2 | Refer to table (2) below. |
| 11 | 10 | 1 | Media width | Refer table (6) below. |
| 12 | 11 | 1 | Media type | Refer table (3) below. |
| 13 | 12 | 1 | Number of colors | Fixed at 00h |
| 14 | 13 | 1 | Media length (higher order bytes) | Fixed at 00h |
| 15 | 14 | 1 | Media sensor value | Fixed at 00h |
| 16 | 15 | 1 | Mode | Fixed at 01h |
| 17 | 16 | 1 | Density | Fixed at 00h |
| 18 | 17 | 1 | Media length (lower order bytes) | Fixed at 00h |
| 19 | 18 | 1 | Status type | Refer to table (4) below. |
| 20 | 19 | 1 | Phase type | Refer table (7) below. |
| 21 | 20 | 1 | Phase number (higher order bytes) | Fixed at 00h |
| 22 | 21 | 1 | Phase number (lower order bytes) | Fixed at 00h |
| 23 | 22 | 1 | Notification number | Not used |
| 24 | 23 | 1 | Expansion area (number of bytes) | Fixed at 00h |
| 25 | 24 | 8 | Reserved | Fixed at 00h |

(1) Error information 1

| Flag | Mask | Definition |
|-------|------|--------------------|
| Bit 0 | 01h | Not used |
| Bit 1 | 02h | Not used |
| Bit 2 | 04h | Not used |
| Bit 3 | 08h | Not used |
| Bit 4 | 10h | Printer in use |
| Bit 5 | 20h | Printer turned off |
| Bit 6 | 40h | Not used |
| Bit 7 | 80h | Not used |

(2) Error information 2

| Flag | Mask | Definition |
|-------|------|---------------------|
| Bit 0 | 01h | Not used |
| Bit 1 | 02h | Not used |
| Bit 2 | 04h | Communication error |
| Bit 3 | 08h | Not used |
| Bit 4 | 10h | Not used |
| Bit 5 | 20h | Not used |
| Bit 6 | 40h | Not used |
| Bit 7 | 80h | Not used |

(3) Media type

| Media Type | Value | Remarks |
|--------------|-------|---------|
| No Paper | 00h | |
| Loaded Paper | 01h | |

(4) Status type

| Status Type | Value | Remarks |
|----------------|------------|---------|
| No Error | 00h | |
| (Not used) | 01h | |
| Error occurred | 02h | |
| (Not used) | 03h to FFh | |

(5) Battery level information

| Flag | Mask | Meaning |
|-------|------|-------------------|
| Bit 0 | 00h | Full battery |
| Bit 1 | 01h | Half battery |
| Bit 2 | 02h | Low battery |
| Bit 3 | 03h | Changing required |
| Bit 4 | 04h | AC adapter in use |

(6) Media width

| Media width | Value | Remarks |
|--------------|-------|---------|
| No Paper | 00h | |
| Loaded Paper | D2h | |

(7) Phase type

| Phase type | Value | Remarks |
|------------|-------|---------|
| Idle | 00h | |
| Printing | 01h | |

^VR Retrieve version information

| | | | |
|--------------|----|----|----|
| ASCII: | ^ | V | R |
| Decimal: | 94 | 86 | 82 |
| Hexadecimal: | 5E | 56 | 52 |

Parameters

None

Description

- Retrieves the version information for the printer as a 16-character text string.

^CR Line feed in object

| | | | |
|--------------|----|----|----|
| ASCII: | ^ | C | R |
| Decimal: | 94 | 67 | 82 |
| Hexadecimal: | 5E | 43 | 52 |

Parameters

None

Description

- Adds a line feed to the next line in the text object.
- Valid even if the text string for the line feed command has been changed

Example

- To print three lines:

Code: 1 ^ C R 2 ^ C R 3 ^ F F

(31h 5Eh 43h 52h 32h 5Eh 43h 52h 33h 5Eh 46h 46h)

Print result:

| |
|---|
| 1 |
| 2 |
| 3 |

^OS Select object (object number)

| | | | | | | |
|--------------|----|----|----|-----|-----|-----|
| ASCII: | ^ | O | S | n1 | n2 | n3 |
| Decimal: | 94 | 79 | 83 | nd1 | nd2 | nd3 |
| Hexadecimal: | 5E | 4F | 53 | nh1 | nh2 | nh3 |

Parameters

n1: 0,1,2

0≤n2≤9

0≤n3≤9

Description

- Selects an object by its object number.
(n1*100)+(n2*10)+n3: Object number (1 to 255)

Remarks

- The object number can be set between 1 and 255.
Please do not set any other value.
- Use this command to insert data starting with an intermediary object.

Example

- To select the 33rd object:

^ O S 3 3
(5Eh 4Fh 53h 33h 33h)

^ON Select object (object name)

| | | | | | |
|--------------|----|----|----|-------|----|
| ASCII: | ^ | O | N | data | 00 |
| Decimal: | 94 | 79 | 78 | datad | 00 |
| Hexadecimal: | 5E | 4F | 4E | datah | 00 |

Parameters

None

Description

- Selects an object by its object name.

data: Text string (object name)

Remarks

- The maximum length of text that can be set is 20 characters. If text longer than this has been specified, the command becomes invalid. In addition, the command becomes invalid if no text has been specified.
- "00h" should be added at the end of the text. This indicates the end of the text.
- Use this command to insert data starting with an intermediary object.

Example

- To select an object with the name "TEXT1":

```
^ O N T E X T 1 00h
(5Eh 4Fh 4Eh 54h 45h 58h 54h 31h 00h)
```

^DI Directly insert object

| | | | | | | |
|--------------|----|----|----|-----|-----|-------|
| ASCII: | ^ | D | I | n1 | n2 | data |
| Decimal: | 94 | 68 | 73 | nd1 | nd2 | datad |
| Hexadecimal: | 5E | 44 | 49 | nh1 | nh2 | datah |

Parameters

00h≤nh1≤FFh

00h≤nh2≤FEh

Description

- Inserts a text string for the specified number of characters into the object selected in the selected template. (Even if a print command or delimiter is within the specified number of characters, they are treated as data.)

(nh2*256)+nh1: Specified number of characters

data: Text string

Example

- If “A” is specified as the print start text string, and the print start trigger is specified as the print start text string, easily print “A” with the following command.

Code: ^ D I 03h 00h 1 A 2 A

(5Eh 44h 49h 00h 03h 31h 41h 32h 41h)

Print result:

1A2

ESC i a Select command mode

| | | | | |
|--------------|-----|-----|----|----|
| ASCII: | ESC | i | a | n |
| Decimal: | 27 | 105 | 97 | nd |
| Hexadecimal: | 1B | 69 | 61 | nh |

Parameters

nh: 00h 03h 04h 30h 33h 34h

Description

- Switches the mode.
 - nh=00h or 30h: ESC/P Legacy / Raster mode
 - nh=03h or 33h: P-touch Template mode (default)
 - nh=04h or 34h: ESC/P Brother mode
- This command is a dynamic command.

ESC iXT2 Select print start trigger

| | | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|-----|
| ASCII: | ESC | i | X | T | 2 | n1 | n2 | n3 |
| Decimal: | 27 | 105 | 88 | 84 | 50 | nd1 | nd2 | nd3 |
| Hexadecimal: | 1B | 69 | 58 | 54 | 32 | nh1 | nh2 | nh3 |

Parameters

nh1: 01h (Fixed)

nh2: 00h (Fixed)

00h≤nh3≤02h

Description

- Selects the type of print start trigger.
 - nh3=00h: When the specified text string is received (default)
 - nh3=01h: When all objects are filled
(Prints with the delimiter at the end of the data.)
 - nh3=02h: When the specified number of characters is received
(not including delimiters)

- This command is a static command.

Remarks

- Invalid if nh3 is a value other than 00h through 02h

Example

- When the print start trigger is “when all objects are filled”:

ESC i X T 2 01h 00h 01h
 (1Bh 69h 58h 54h 32h 01h 00h 01h)

ESC iXP2 Specify print start command text string

| | | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|-------|
| ASCII: | ESC | i | X | P | 2 | n1 | n2 | data |
| Decimal: | 27 | 105 | 88 | 80 | 50 | nd1 | nd2 | datad |
| Hexadecimal: | 1B | 69 | 58 | 50 | 32 | nh1 | nh2 | datah |

Parameters

01h≤nh1≤14h

nh2: 00h (Fixed)

00h≤datah≤FFh

Description

- Specifies the text string for the print start command.
 - nh1+(nh2*256): Length of the text string (can be set between 1 and 20)
 - data: Text string (The maximum number of characters that can be set is 20 characters (bytes).)
- The default text string for the print start command is “^FF”.
- This command is a static command.

Remarks

- Invalid if more than 20 characters have been specified

Example

- To change the text string for the print start command to “START”:

Since the text string to be specified (data), “START”, contains 5 characters, nh1=05h and nh2=00h. Therefore, the command will be as follows.

ESC i X P 2 05h 00h S T A R T
(1Bh 69h 58h 50h 32h 05h 00h 53h 54h 41h 52h 54h)

ESC iXr2 Specify print start received character count

| | | | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|-----|-----|
| ASCII: | ESC | i | X | r | 2 | n1 | n2 | n3 | n4 |
| Decimal: | 27 | 105 | 88 | 114 | 50 | nd1 | nd2 | nd3 | nd4 |
| Hexadecimal: | 1B | 69 | 58 | 72 | 32 | nh1 | nh2 | nh3 | nh4 |

Parameters

nh1: 02h (Fixed)

nh2: 00h (Fixed)

00h≤nh3≤FFh

00h≤nh4≤03h

Description

- Specifies the number of characters to be received in order to start printing.
nh3+(nh4*256): Print start received character count (bytes) (1 to 999)
- The default print start received character count is 10.
- This command is a static command.

Example

- To change the print start received character count to 100 characters:

Since nh3=64h and nh4=00h, the command will be as follows.

ESC i X r 2 02h 00h 64h 00h
(1Bh 69h 58h 72h 32h 02h 00h 64h 00h)

ESC iXD2 Specify delimiter

| | | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|-------|
| ASCII: | ESC | i | X | D | 2 | n1 | n2 | data |
| Decimal: | 27 | 105 | 88 | 68 | 50 | nd1 | nd2 | datad |
| Hexadecimal: | 1B | 69 | 58 | 44 | 32 | nh1 | nh2 | datah |

Parameters

01h≤nh1≤14h

nh2: 00h (Fixed)

00h≤datah≤FFh

Description

- The delimiter is used to indicate when to move to the next object in data that is being sent.
- Specifies the text string for the delimiter.
 nh1+(nh2*256): Length of the text string (between 1 and 20)
 data: Text string (The maximum number of characters that can be set is 20 characters (bytes).)
- The default text string for the delimiter is "09h" (Tab code).
- This command is a static command.

Remarks

- Invalid if more than 20 characters have been specified

Example

- To change the delimiter to "," (2Ch):
 Since the text string contains one character, nh1=01h and nh2=00h. In addition, with the text string (datah) ",", (2Ch), the command will be as follows.

ESC i X D 2 01h 00h 2Ch
 (1Bh 69h 58h 44h 32h 01h 00h 2Ch)

ESC iXa2 Specify non-printed text strings

| | | | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|-----|-------|
| ASCII: | ESC | i | X | a | 2 | n1 | n2 | n3 | data |
| Decimal: | 27 | 105 | 88 | 97 | 50 | nd1 | nd2 | nd3 | datad |
| Hexadecimal: | 1B | 69 | 58 | 61 | 32 | nh1 | nh2 | nh3 | datah |

Parameters

01h≤nh1≤15h

nh2: 00h (Fixed)

nh3: 01h (Fixed)

00h≤datah≤FFh

Description

- Specifies the non-printed text string.
 nh1+(nh2*256): Length of the text string (0 to 20) + 1
 data: Text string (The maximum number of characters that can be set is 20 characters (bytes).)
- This command is a static command.

Remarks

- Invalid if more than 20 characters have been specified

Example

- To specify the non-printed text string as "ABCD":
 Since the text string contains four characters, nh1=05h and nh2=00h. Therefore, the command will be as follows.

ESC i X a 2 05h 00h 01h A B C D
 (1Bh 69h 58h 61h 32h 05h 00h 01h 41h 42h 43h 44h)

ESC iXi2 Select command mode

| | | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|-----|
| ASCII: | ESC | i | X | i | 2 | n1 | n2 | n3 |
| Decimal: | 27 | 105 | 88 | 105 | 50 | nd1 | nd2 | nd3 |
| Hexadecimal: | 1B | 69 | 58 | 69 | 32 | nh1 | nh2 | nh3 |

Parameters

nh1: 01h (Fixed)

nh2: 00h (Fixed)

nh3: 00h 10h 03h 04h

Description

- Switches the mode.
 - nh3=00h: Raster mode
 - nh3=10h: ESC/P Legacy mode
 - nh3=03h: P-touch Template mode (default)
 - nh3=04h: ESC/P Brother mode
- This command is a static command.

Remarks

- Invalid if a value other than those that can be set has been specified

ESC iXn2 Select template

| | | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|-----|
| ASCII: | ESC | i | X | n | 2 | n1 | n2 | n3 |
| Decimal: | 27 | 105 | 88 | 110 | 50 | nd1 | nd2 | nd3 |
| Hexadecimal: | 1B | 69 | 58 | 6E | 32 | nh1 | nh2 | nh3 |

Parameters

nh1: 01h (Fixed)

nh2: 00h (Fixed)

01h≤nh3≤FFh

Description

- Selects the number of the template selected from the printer.

n3: Template number (1 to 255)

- The default selection number is 1.
- This command is a static command.

Remarks

- The template numbers that can be set are between 1 and 255.

This command becomes invalid if any other value has been specified or if the number that has been specified is for a template not transferred to the printer.

Example

- To select template number 99:

Since nh3=63h, the command will be as follows.

ESC i X n 2 01h 00h 63h

(1Bh 69h 58h 6Eh 32h 01h 00h 63h)

ESC iXf2 Change the prefix character

| | | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|-----|
| ASCII: | ESC | i | X | f | 2 | n1 | n2 | n3 |
| Decimal: | 27 | 105 | 88 | 102 | 50 | nd1 | nd2 | nd3 |
| Hexadecimal: | 1B | 69 | 58 | 66 | 32 | nh1 | nh2 | nh3 |

Parameters

nh1: 01h (Fixed)

nh2: 00h (Fixed)

00h≤nh3≤FFh

Description

- Changes the prefix character code.
n3: Character code
- The default text string for the prefix character is “^”.
- This command is a static command.

Example

- To change the prefix character to “_”:

ESC i X f 2 01h 00h 5Fh (“_”)
(1Bh 69h 58h 66h 32h 01h 00h 5Fh)

ESC iXm2 Select character code set

| | | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|-----|
| ASCII: | ESC | i | X | m | 2 | n1 | n2 | n3 |
| Decimal: | 27 | 105 | 88 | 109 | 50 | nd1 | nd2 | nd3 |
| Hexadecimal: | 1B | 69 | 58 | 6D | 32 | nh1 | nh2 | nh3 |

Parameters

nh1: 01h (Fixed)
 nh2: 00h (Fixed)
 00h≤nh3≤02h, 0Ch

Description

- Selects the character code set. (For details on the character code sets, refer to the character code tables in "[Appendix B: Character Code Tables](#)".)
 nh3=00h: Brother standard
 nh3=01h: Windows1250 (Eastern Europe)
 nh3=02h: Windows1252 (Western Europe)
 nh3=0Ch: Windows 1251 (Cyrill)
- Invalid if nh3 is set to a value other than 00h through 02h and 0Ch.
- This command is a static command.

Example

- To set the character code set to the Brother standard:

ESC i X m 2 01h 00h 00h
 (1Bh 69h 58h 6Dh 32h 01h 00h 00h)

ESC iXj2 Select international character set

| | | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|-----|
| ASCII: | ESC | i | X | j | 2 | n1 | n2 | n3 |
| Decimal: | 27 | 105 | 88 | 106 | 50 | nd1 | nd2 | nd3 |
| Hexadecimal: | 1B | 69 | 58 | 6A | 32 | nh1 | nh2 | nh3 |

Parameters

nh1: 01h (Fixed)
nh2: 00h (Fixed)
00h≤nh3≤0Dh, 40h

Description

- Selects the character set according to the country selected, and switches some character codes in the code table according to the value for nh3.

nh3=00h: USA
nh3=01h: France
nh3=02h: Germany
nh3=03h: Britain
nh3=04h: Denmark I
nh3=05h: Sweden
nh3=06h: Italy
nh3=07h: Spain I
nh3=08h: Japan
nh3=09h: Norway
nh3=0Ah: Denmark II
nh3=0Bh: Spain II
nh3=0Ch: Latin America
nh3=0Dh: South Korea
nh3=40h: Legal

- The following 12 codes are switched.
23h 24h 40h 5Bh 5Ch 5Dh 5Eh 60h 7Bh 7Ch 7Dh 7Eh
(For the characters that are switched, refer to "[International character set table](#)".)
- The default setting is nh3=00h (USA).
- This command is a static command.

Example

- To change the international character set to that for Japan:

ESC i X j 2 01h 00h 08h
(1Bh 69h 58h 6Ah 32h 01h 00h 08h)

ESC iXR2 Specify line feed command text string

| | | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|-------|
| ASCII: | ESC | i | X | R | 2 | n1 | n2 | data |
| Decimal: | 27 | 105 | 88 | 82 | 50 | nd1 | nd2 | datad |
| Hexadecimal: | 1B | 69 | 58 | 52 | 32 | nh1 | nh2 | datah |

Parameters

01h≤nh1≤14h

nh2: 00h (Fixed)

00h≤datah≤FFh

Description

- Specifies the text string for the line feed command.
 - nh1+(nh2*256): Length of the text string (can be set between 1 and 20)
 - data: Text string (The maximum number of characters that can be set is 20 characters (bytes).)
- The default text string for the line feed command is “^CR”.
- This command is a static command.

Remarks

- Invalid if more than 20 characters have been specified

Example

- To change the text string for the line feed command to “0Dh 0Ah”:

Since the text string to be specified (data), contains 2 characters, nh1=02h and nh2=00h. Therefore, the command will be as follows.

ESC i X R 2 02h 00h 0Dh 0Ah
(1Bh 69h 58h 52h 32h 02h 00h 0Dh 0Ah)

ESC iXC2 Specify number of copies

| | | | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|-----|-----|
| ASCII: | ESC | i | X | C | 2 | n1 | n2 | n3 | n4 |
| Decimal: | 27 | 105 | 88 | 67 | 50 | nd1 | nd2 | nd3 | nd4 |
| Hexadecimal: | 1B | 69 | 58 | 43 | 32 | nh1 | nh2 | nh3 | nh4 |

Parameters

nh1: 02h (Fixed)

nh2: 00h (Fixed)

00h≤nh3≤FFh

00h≤nh4≤03h

Description

- Specifies the number of copies to be printed.
nh3+(nh4*256): Number of copies (bytes) (1 to 999)
- The default number of copies is 1.
- This command is a static command.

Example

- To change the number of copies to 100:

Since nh3=64h and nh4=00h, the command will be as follows.

ESC i X C 2 02h 00h 64h 00h

(1Bh 69h 58h 43h 32h 02h 00h 64h 00h)

ESC iXF2 FNC1 replacement setting

| | | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|-----|
| ASCII: | ESC | i | X | F | 2 | n1 | n2 | n3 |
| Decimal: | 27 | 105 | 88 | 70 | 50 | nd1 | nd2 | nd3 |
| Hexadecimal: | 1B | 69 | 58 | 46 | 32 | nh1 | nh2 | nh3 |

Parameters

nh1: 01h (Fixed)

nh2: 00h (Fixed)

nh3: 00h 01h

Description

- Selects whether or not GS codes, which are included in barcode protocols such as GS1-128 (UCC/EAN-128), are replaced with FNC1 codes.
nh3=00h: FNC1 replacement setting OFF
nh3=01h: FNC1 replacement setting ON
- This command is a static command.

Example

- To disable FNC1 replacement:

ESC i X F 2 01h 00h 00h
(1Bh 69h 58h 46h 32h 01h 00h 00h)

ESC iXE2 Specify barcode margin setting

| | | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|-----|
| ASCII: | ESC | i | X | E | 2 | n1 | n2 | n3 |
| Decimal: | 27 | 105 | 88 | 69 | 50 | nd1 | nd2 | nd3 |
| Hexadecimal: | 1B | 69 | 58 | 45 | 32 | nh1 | nh2 | nh3 |

Parameters

nh1: 01h (Fixed)

nh2: 00h (Fixed)

nh3: 00h, 01h

Description

- Select an existence of barcode margin.

nh3=00h:

No margin

nh3=01h:

Add margin

- The default value of nh3 is 01h.
- This command is a static command.

Example

- For setting “No margin”.

Since nh3=00h, the command will be as follows.

ESC i X E 2 01h 00h 00h

(1Bh 69h 58h 45h 32h 01h 00h 00h)

ESC iXh2 Specify rotated print

| | | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|-----|
| ASCII: | ESC | i | X | h | 2 | n1 | n2 | n3 |
| Decimal: | 27 | 105 | 88 | 104 | 50 | nd1 | nd2 | nd3 |
| Hexadecimal: | 1B | 69 | 58 | 68 | 32 | nh1 | nh2 | nh3 |

Parameters

nh1: 01h (Fixed)

nh2: 00h (Fixed)

nh3: 00h, 01h

Description

- Select rotate setting.
 - nh3=00h: No rotation
 - nh3=01h: 180 degrees rotation
- The default value for the rotate setting is "00h" (No rotation).
- This command is a static command.

Example

- To set the rotate setting to 180 degrees rotation:

Since nh3=01h, the command will be as follows.

ESC i X h 2 01h 00h 01h
 (1Bh 69h 58h 68h 32h 01h 00h 01h)

ESC iXT1 Retrieve print start trigger setting

| | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|
| ASCII: | ESC | i | X | T | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 84 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 54 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- The print start trigger is returned as 3-byte data.
 - [1]: 01h (Fixed)
 - [2]: 00h (Fixed)
 - [3]: Setting
 - 00h: When the specified text string is received
 - 01h: When all objects are filled
 - 02h: When the specified number of characters is received
- The retrieved value is a value specified by a static command.

Example

- The print start trigger specified for the printer is retrieved. When the setting is “when the specified text string is received”:

Code: ESC i X T 1 00h 00h
 (1Bh 69h 58h 54h 31h 00h 00h)
 Returned value: 01h 00h 00h

ESC iXP1 Retrieve print start command setting text string

| | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|
| ASCII: | ESC | i | X | P | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 80 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 50 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the text string specified for the print start command.
- 3- to 22-byte data is returned from the printer. (Varies depending on the length of the text string)
 - [1,2]: nh1 nh2 (number of characters) $nh1+(nh2*256)$
 - [3 and later]: Text string
- The retrieved value is a value specified by a static command.

Example

- When the text string for the print start command is specified as "START":

Code: ESC i X P 1 00h 00h
 (1Bh 69h 58h 50h 31h 00h 00h)

Returned value: 05h 00h S T A R T
 (05h 00h 53h 54h 41h 52h 54h)

ESC iXr1 Retrieve print start received character count

| | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|
| ASCII: | ESC | i | X | r | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 114 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 72 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the number of characters specified to be received in order to start printing.
- 4-byte data is returned from the printer.
 - [1]: 02h (Fixed)
 - [2]: 00h (Fixed)
 - [3,4]: nh3 nh4 settings
nh3+(nh4*256): Print start received character count
- The retrieved value is a value specified by a static command.

Example

- For a print start received character count of 500 characters:

Code: ESC i X r 1 00h 00h

(1Bh 69h 58h 72h 31h 00h 00h)

Returned value: 02h 00h F4h 01h (244+1*256=F4h+01h*256=500 characters)

ESC iXD1 Retrieve delimiter

| | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|
| ASCII: | ESC | i | X | D | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 68 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 44 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the text string specified for the delimiter.
- 3- to 22-byte data is returned from the printer. (Varies depending on the length of the text string)
 - [1,2]: nh1 nh2 (number of characters) nh1+(nh2*256)
 - [3 and later]: Text string
- The retrieved value is a value specified by a static command.

Example

- When the delimiter is set as “,” (2Ch):

Code: ESC i X D 1 00h 00h
 (1Bh 69h 58h 44h 31h 00h 00h)

Returned value: 01h 00h
 (01h 00h 2Ch)

ESC iXa1 Retrieve non-printed text strings

| | | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|-----|
| ASCII: | ESC | i | X | a | 1 | n1 | n2 | n3 |
| Decimal: | 27 | 105 | 88 | 97 | 49 | nd1 | nd2 | nd3 |
| Hexadecimal: | 1B | 69 | 58 | 61 | 31 | nh1 | nh2 | nh3 |

Parameters

nh1: 01h (Fixed)

nh2: 00h (Fixed)

nh3: 01h (Fixed)

Description

- Retrieves the specified non-printed text string.
- 2- to 22-byte data is returned from the printer. (Varies depending on the length of the text string)
 - [1,2]: nh1 nh2 (number of characters) $nh1+(nh2*256)$
 - [3 and later]: Text string
- The retrieved value is a value specified by a static command.

Example

- When "ABCD" is specified as the non-printed text string:

The following command is sent to the printer.

Code: ESC i X a 1 01h 00h 01h
 (1Bh 69h 58h 61h 31h 01h 00h 01h)
 Returned value: 04h 00h A B C D
 (04h 00h 41h 42h 43h 44h)

ESC iXi1 Retrieve command mode setting

| | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|
| ASCII: | ESC | i | X | i | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 105 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 69 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the setting for the command mode.
- 3-byte data is returned from the printer.
 - [1]: 01h (Fixed)
 - [2]: 00h (Fixed)
 - [3]: Setting
 - 00h: Raster mode
 - 10h: ESC/P Legacy mode
 - 03h: P-touch Template mode
 - 04h: ESC/P Brother mode
- The retrieved value is a value specified by a static command.

Example

- When the setting is for raster mode:

Code: ESC i X i 1 00h 00h
 (1Bh 69h 58h 69h 31h 00h 00h)
 Returned value: 01h 00h 00h

ESC iXn1 Retrieve number of selected template

| | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|
| ASCII: | ESC | i | X | n | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 110 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 6E | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the template number selected from the printer.
- 3-byte data is returned from the printer.
 - [1]: 01h (Fixed)
 - [2]: 00h (Fixed)
 - [3]: Setting
- The retrieved value is a value specified by a static command.

Example

- When template number 99 is selected:

Code: ESC i X n 1 00h 00h
 (1Bh 69h 58h 6Eh 31h 00h 00h)
 Returned value: 01h 00h 63h

ESC iXm1 Retrieve character code set setting

| | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|
| ASCII: | ESC | i | X | m | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 109 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 6D | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the specified character code set. (For details on the character code sets, refer to "[Appendix B: Character Code Tables](#)".)
- 3-byte data is returned from the printer.
 - [1]: 01h (Fixed)
 - [2]: 00h (Fixed)
 - [3]: Setting
 - 00h: Brother standard
 - 01h: Windows1250 (Eastern Europe)
 - 02h: Windows1252 (Western Europe)
 - 0Ch: Cyrillic
- The retrieved value is a value specified by a static command.

Example

- When the character code set is the Brother standard:

Code: ESC i X m 1 00h 00h
 (1Bh 69h 58h 6Dh 31h 00h 00h)
 Returned value: 01h 00h 00h

ESC iXj1 Retrieve international character set setting

| | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|
| ASCII: | ESC | i | X | j | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 106 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 6A | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the international character set setting.
- 3-byte data is returned from the printer.

[1]: 01h (Fixed)

[2]: 00h (Fixed)

[3]: Setting

00h: USA

01h: France

02h: Germany

03h: Britain

04h: Denmark I

05h: Sweden

06h: Italy

07h: Spain I

08h: Japan

09h: Norway

0Ah: Denmark II

0Bh: Spain II

0Ch: Latin America

0Dh: South Korea

40h: Legal

- The retrieved value is a value specified by a static command.

Example

- When the international character set is that for Japan:

Code: ESC i X j 1 00h 00h

(1Bh 69h 58h 6Ah 31h 00h 00h)

Returned value: 01h 00h 08h

ESC iXf1 Retrieve prefix character

| | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|
| ASCII: | ESC | i | X | f | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 102 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 66 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the prefix character code.
- 3-byte data is returned from the printer.
 - [1]: 01h (Fixed)
 - [2]: 00h (Fixed)
 - [3]: Specified character
- The retrieved value is a value specified by a static command.

Example

- When the prefix character is set to “_”:

Code: ESC i X f 1 00h 00h

(1Bh 69h 58h 66h 31h 00h 00h)

Returned value: 01h 00h 5Fh (5Fh stands for “_” in ASCII code)

ESC iXR1 Retrieve line feed command setting text string

| | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|
| ASCII: | ESC | i | X | R | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 82 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 52 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the text string specified for the line feed command.
- 2- to 22-byte data is returned from the printer. (Varies depending on the length of the text string)
 - [1, 2]: nh1 nh2 (number of characters) nh1+(nh2*256)
 - [3 and later]: Text string
- The retrieved value is a value specified by a static command.

Example

- When the text string for the line feed command is specified as "0Dh 0Ah":

Code: ESC i X R 1 00h 00h

(1Bh 69h 58h 52h 31h 00h 00h)

Returned value: 02h 00h 0Dh 0Ah

ESC iXC1 Retrieve number of copies setting

| | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|
| ASCII: | ESC | i | X | C | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 67 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 43 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the number of copies specified to be printed.
- 4-byte data is returned from the printer.
 - [1]: 02h (Fixed)
 - [2]: 00h (Fixed)
 - [3, 4]: nh3 nh4 settings
nh3+(nh4*256): Print start received character count
- The retrieved value is a value specified by a static command.

Example

- When the number of copies is set to 500:

Code: ESC i X C 1 00h 00h

(1Bh 69h 58h 43h 31h 00h 00h)

Returned value: 02h 00h F4h 01h (F4h+01h*256=244+256=500)

ESC iXF1 Retrieve FNC1 replacement setting

| | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|
| ASCII: | ESC | i | X | F | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 70 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 46 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieves the FNC1 replacement setting.
- 3-byte data is returned from the printer.
 - [1]: 01h (Fixed)
 - [2]: 00h (Fixed)
 - [3]: Setting
 - 00h: FNC1 replacement setting OFF
 - 01h: FNC1 replacement setting ON
- The retrieved value is a value specified by a static command.

Example

- When the FNC1 replacement setting is OFF:

Code: ESC i X F 1 00h 00h
 (1Bh 69h 58h 46h 31h 00h 00h)
 Returned value: 01h 00h 00h

ESC iXE1 Retrieve barcode margin setting

| | | | | | | | |
|--------------|-----|-----|----|----|----|-----|-----|
| ASCII: | ESC | i | X | E | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 69 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 45 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieve the barcode margin setting.
- 3-byte data is returned from the printer.
 - [1]: 01h (Fixed)
 - [2]: 00h (Fixed)
 - [3]: nh3 Settings
- The retrieved value is a value specified by a static command.

Example

- The case the barcode margin setting is set as "Add margin".

Code: ESC i X E 1 00h 00h
 (1Bh 69h 58h 45h 31h 00h 00h)
 Returned value: 01h 00h 01h

ESC iXh1 Retrieve rotated print setting

| | | | | | | | |
|--------------|-----|-----|----|-----|----|-----|-----|
| ASCII: | ESC | i | X | h | 1 | n1 | n2 |
| Decimal: | 27 | 105 | 88 | 104 | 49 | nd1 | nd2 |
| Hexadecimal: | 1B | 69 | 58 | 68 | 31 | nh1 | nh2 |

Parameters

nh1: 00h (Fixed)

nh2: 00h (Fixed)

Description

- Retrieve rotated print setting.
- 3-byte data is returned from the printer.
 - [1]: 01h (Fixed)
 - [2]: 00h (Fixed)
 - [3]: nh3 Settings
- The retrieved value is a value specified by a static command.

Example

- When the rotate setting is set to 180 degrees rotation:

Code: ESC i X h 1 00h 00h
 (1Bh 69h 58h 68h 31h 00h 00h)
 Returned value: 01h 00h 01h

Appendix A: Specifications

BROTHER PJ-722/723/762/763/763MFi/773 P-touch Template specifications

| | | | |
|----------|----------------------|----------------------|--|
| Printing | Printing method | | ESC/P Legacy / Raster printing ESC/P Brother printing <u>P-touch Template printing</u> |
| | Maximum print length | | 1 meter |
| | Resolution (dpi) | | PJ-722/762: 203 dpi × 200 dpi PJ-723/763/763MFi/773 : 300dpi x 300dpi |
| | Text | Font | Bitmap fonts: Helsinki, Brussel, Letter Gothic Outline fonts: Helsinki, Brussel, Letter Gothic |
| | | Size (dots) | Outline fonts: Maximum 400 dots |
| | | Character style | None, Bold, Italics, Outline, Shadow, Shadow + Outline |
| | | Underline | - |
| | | Character width | - |
| | | Horizontal alignment | Left, Center, Right |
| | | Rotate | Portrait, landscape |
| | Bar-code | Protocols | CODE39, ITF (I-2/5), EAN-13, EAN-8, UPC-A, UPC-E, CODABAR, CODE128, GS1-128 (UCC/EAN-128), QR Code, PDF417, Data Matrix, MaxiCode, RSS-14(Standard, Truncated, Stacked, Stacked Omni), RSS-Limited, RSS Expanded(Standard, Stacked) , POSTNET, Aztec |
| | | Width | Large, Medium, Small, Extra Small |

Settings that appear in **bold** and underlined are the default settings.

Appendix B: Character Code Tables

Character code tables

(1) Windows1252 (Western Europe)

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|----|---|---|---|---|-----|-----|---|---|---|---|---|---|---|
| 0 | | | SP | 0 | @ | P | | p | € | | | ° | À | Ð | à | ð |
| 1 | | | ! | 1 | A | Q | a | q | ~ | ' | i | ± | Á | Ñ | á | ñ |
| 2 | | | " | 2 | B | R | b | r | , | ' | ç | ² | Â | Ò | â | ò |
| 3 | | | # | 3 | C | S | c | s | f | " | £ | ³ | Ã | Ó | ã | ó |
| 4 | | | \$ | 4 | D | T | d | t | , | " | ¤ | ' | Ä | Ô | ä | ô |
| 5 | | | % | 5 | E | U | e | u | ... | • | ¥ | µ | Å | Õ | å | õ |
| 6 | | | & | 6 | F | V | f | v | † | - | | ¶ | Æ | Ö | æ | ö |
| 7 | | | ' | 7 | G | W | g | w | ‡ | — | § | · | Ç | × | ç | ÷ |
| 8 | | | (| 8 | H | X | h | x | ^ | ~ | ¨ | ¸ | È | Ø | è | ø |
| 9 | | |) | 9 | I | Y | i | y | ‰ | ™ | © | ¹ | É | Ù | é | ù |
| A | | | * | : | J | Z | j | z | Š | š | ª | º | Ê | Ú | ê | ú |
| B | | | + | ; | K | [| k | { | < | > | « | » | Ë | Û | ë | û |
| C | | | , | < | L | \ | l | | Œ | œ | ¬ | ¼ | Ì | Ü | ì | ü |
| D | | | - | = | M |] | m | } | | | - | ½ | Í | Ý | í | ý |
| E | | | . | > | N | ^ | n | ~ | Ž | ž | ® | ¾ | Î | Þ | î | þ |
| F | | | / | ? | O | _ | o | DEL | | ÿ | ¯ | ¿ | Ï | ß | ï | ÿ |

Note

" ■ " indicates that a space is printed.

" ■ " indicates that the character will switch when the international character set is changed.

(2) Windows1250 (Eastern Europe)

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|----|---|---|---|---|-----|--------|---|---|---|---|---|---|---|
| 0 | | | SP | 0 | @ | P | ` | p | € | ť | | ° | Ř | Đ | ř | ď |
| 1 | | | ! | 1 | A | Q | a | q | À | ‘ | ˘ | ± | Á | Ň | á | ň |
| 2 | | | " | 2 | B | R | b | r | , | ’ | ˙ | ˘ | Â | Ň | â | ň |
| 3 | | | # | 3 | C | S | c | s | ˘ L | “ | Ł | ł | Ă | Ó | ă | ó |
| 4 | | | \$ | 4 | D | T | d | t | „ | ” | ¤ | ’ | Ä | Ô | ä | ô |
| 5 | | | % | 5 | E | U | e | u | ... | • | Ą | μ | Í | Ő | í | ő |
| 6 | | | & | 6 | F | V | f | v | † | – | | ¶ | Ć | Ö | ć | ö |
| 7 | | | ’ | 7 | G | W | g | w | ‡ | — | § | · | Ç | × | ç | ÷ |
| 8 | | | (| 8 | H | X | h | x | İ | | ¨ | ˘ | Č | Ř | č | ř |
| 9 | | |) | 9 | I | Y | i | y | ‰ | ™ | © | ą | É | Û | é | ű |
| A | | | * | : | J | Z | j | z | Š | š | Ş | ş | Ę | Ú | ę | ú |
| B | | | + | ; | K | [| k | { | < | > | « | » | Ě | Ů | ě | ů |
| C | | | , | < | L | \ | l | | Ś | ś | ¬ | Ł | Ě | Ü | ę | ü |
| D | | | – | = | M |] | m | } | Ť | ť | – | ” | Í | Ý | í | ý |
| E | | | . | > | N | ^ | n | ~ | Ž | ž | ® | İ | Î | Ț | î | ț |
| F | | | / | ? | O | _ | o | DEL | Ž | ž | Ž | ž | Ď | ß | ď | · |

Note

" ■ " indicates that a space is printed.

" ■ " indicates that the character will switch when the international character set is changed.

(3) Brother standard

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|----|---|---|---|---|-----|---|-----|---|-----|---|---|---|---|
| 0 | | | SP | 0 | @ | P | | p | Ç | É | á | | L | | α | |
| 1 | | | ! | 1 | A | Q | a | q | ü | æ | í | | ⊥ | | β | ± |
| 2 | | | " | 2 | B | R | b | r | é | Æ | ó | | ⊥ | | | |
| 3 | | | # | 3 | C | S | c | s | â | ô | ú | | ⊥ | | | ¾ |
| 4 | | | \$ | 4 | D | T | d | t | ä | ö | ñ | ⊥ | — | | | |
| 5 | | | % | 5 | E | U | e | u | à | ò | Ñ | | ⊥ | | | § |
| 6 | | | & | 6 | F | V | f | v | å | û | ª | | | | μ | ÷ |
| 7 | | | ' | 7 | G | W | g | w | ç | ù | º | | | | | |
| 8 | | | (| 8 | H | X | h | x | ê | ÿ | ¿ | © | ℓ | | | ° |
| 9 | | |) | 9 | I | Y | i | y | ë | Ö | ® | ¶ | ¶ | ⌋ | | . |
| A | | | * | : | J | Z | j | z | è | Ü | € | ¶ | ¶ | ⌋ | Ω | |
| B | | | + | ; | K | [| k | { | ï | ø | ½ | ¶ | ¶ | ✓ | δ | |
| C | | | , | < | L | \ | l | | î | £ | ¼ | ¶ | ¶ | ☑ | | ³ |
| D | | | - | = | M |] | m | } | ì | ¥ | ¡ | TEL | = | | ø | ² |
| E | | | . | > | N | ^ | n | ~ | Ä | Pts | « | FAX | ¶ | | | |
| F | | | / | ? | O | _ | o | DEL | Å | f | » | ¶ | | □ | | |

Note

" ■ " indicates that a space is printed.

" ■ " indicates that the character will switch when the international character set is changed.

(4) Windows 1251 (Cyrill)

| | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|----|---|---|---|---|---|-----|---|---|---|---|---|---|---|
| 0 | | | SP | 0 | @ | P | ` | p | Ђ | ђ | | ° | А | Р | а | Р |
| 1 | | | ! | 1 | А | Q | а | q | Ѓ | ‘ | Ў | ± | Б | С | б | с |
| 2 | | | " | 2 | В | Р | В | р | , | ' | ў | І | В | Т | в | т |
| 3 | | | # | 3 | С | S | С | s | ѓ | “ | Ј | і | Г | У | г | у |
| 4 | | | \$ | 4 | Д | Т | Д | t | „ | ” | ѡ | ѓ | Д | Ф | д | ф |
| 5 | | | % | 5 | Е | U | e | u | ... | • | Ѓ | μ | Е | Х | е | х |
| 6 | | | & | 6 | Ф | V | f | v | † | — | і | ¶ | Ж | Ц | ж | ц |
| 7 | | | ' | 7 | Г | W | g | w | ‡ | — | § | · | З | Ч | з | ч |
| 8 | | | (| 8 | Н | X | h | x | € | | Ё | ё | И | Ш | и | ш |
| 9 | | |) | 9 | І | Y | i | y | ‰ | ™ | © | № | Й | Щ | й | щ |
| A | | | * | : | Ј | Z | j | z | Љ | љ | Є | є | К | Ъ | к | ъ |
| B | | | + | ; | К | [| k | { | ‹ | › | « | » | Л | Ы | л | ы |
| C | | | , | < | Л | \ | l | | Њ | њ | џ | j | М | Ь | м | ь |
| D | | | - | = | М |] | m | } | Ќ | ќ | | Ѕ | Н | Э | н | э |
| E | | | . | > | Н | ^ | n | ~ | Ћ | ћ | ® | ѕ | О | Ю | о | ю |
| F | | | / | ? | О | _ | o | | Ў | џ | Ї | ї | П | Я | п | я |

" ■ " indicates that a space is printed.

" ■ " indicates that the character will switch when the international character set is changed.

International character set table

Corresponding characters that switch in each language when the international character set is changed

| n | | 23 | 24 | 40 | 5B | 5C | 5D | 5E | 60 | 7B | 7C | 7D | 7E |
|----|-----------------------|----|----|----|----|----|----|----|----|----|----|----|----|
| 0 | United States (U.S.A) | # | \$ | @ | [| \ |] | ^ | ` | { | | } | ~ |
| 1 | France | # | \$ | à | ° | ç | § | ^ | ` | é | ù | è | ¨ |
| 2 | Germany | # | \$ | § | Ä | Ö | Ü | ^ | ` | ä | ö | ü | ß |
| 3 | Britain (U.K.) | £ | \$ | @ | [| \ |] | ^ | ` | { | | } | ~ |
| 4 | Denmark I | # | \$ | @ | Æ | Ø | Å | ^ | ` | æ | ø | 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 | \$ | @ | ¡ | Ñ | ¿ | ^ | ` | ¨ | ñ | } | ~ |
| 8 | Japan | # | \$ | @ | [| ¥ |] | ^ | ` | { | | } | ~ |
| 9 | Norway | # | ¤ | É | Æ | Ø | Å | Ü | é | æ | ø | å | ü |
| 10 | Denmark II | # | \$ | É | Æ | Ø | Å | Ü | é | æ | ø | å | ü |
| 11 | Spain II | # | \$ | á | ¡ | Ñ | ¿ | é | ` | í | ñ | ó | ú |
| 12 | Latin America | # | \$ | á | ¡ | Ñ | ¿ | é | ü | í | ñ | ó | ú |
| 13 | South Korea | # | \$ | @ | [| ₩ |] | ^ | ` | { | | } | ~ |
| 64 | Legal | # | \$ | § | ° | ' | " | ¶ | ` | © | ® | † | ™ |

Appendix C: Troubleshooting

If printing does not begin (main most frequent cause)

- (1) The communication settings are incorrect.
- (2) The command mode is not in the P-touch Template mode.
- (3) The conditions for the print start trigger are not met.

The following three types of print start triggers exists, but the current selection is incorrect.

- When the specified text string is received
- When all objects are filled
- When the specified number of characters is received

If the settings described above are incorrect, use the P-touch Template Settings tool to specify the settings.

Appendix D: Introducing the Brother Developer Center

Useful information for developers, such as applications, tools, SDKs as well as FAQs, are provided in the Brother Developer Center.

<http://www.brother.com/product/dev/index.htm>

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