Software Developer's Manual

DPL Emulation Guide

TD-4420TN/4520TN

TD-4650TNWB/4650TNWBR/4750TNWB/4750TNWBR

TJ-4005DN/4010TN

TJ-4020TN/4021TN/4021TNR/4120TN/4121TN/4121TNR

TJ-4420TN/4520TN/4620TN/4422TN/4522TN

TJ-6421TN/6521TN

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Important Note

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Table of Contents

1. Introduction

DPL emulation allows TD-4T and TJ Printers to interpret DPL commands. To use this feature, change the printer settings as described in [Section 2](#).

2. Printer Settings

The TD-4T and TJ Printers have built-in paper settings that are necessary to perform printing operations (position detection). The settings are saved in the device's flash memory so they are retained even if the power is turned off. Before using the DPL emulation, printer settings (such as the paper size and type) must be set using the Brother Printer Management Tool (BPM):

   a.   Start the BPM.

   b.   Click the **Printer Function**.

   c.   Select the calibration sensor, and click the **Calibrate**.
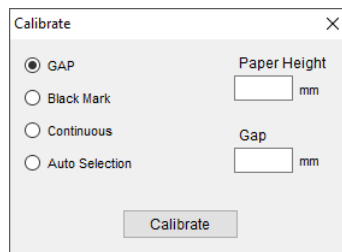
   d.   Click the **Printer Configuration**.

   e.   Select the **FBPL** tab.

   f.   Set the print operations you want.

   g.   Check if the paper size settings for each printer language is correct.

   h.   Click **Set**.
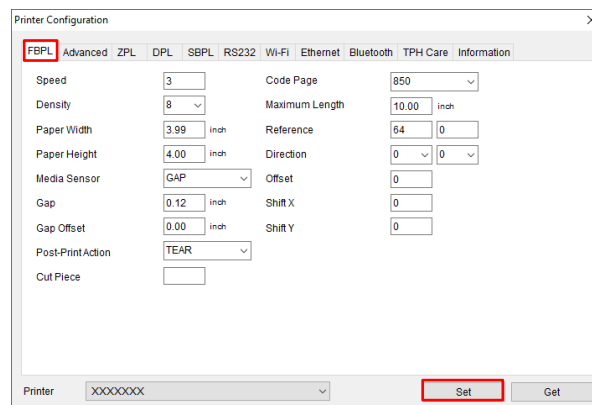
The paper size and type can be set using the FBPL paper setting command (refer to *FBPL Command Reference*).

For more information, see the *User's Guide* on your model's Manuals page at support.brother.com.

3. DPL Emulation Support Commands

Classification	Command	Comment
Immediate Command	`<SOH>#`	Reset
	`<SOH>*`	Reset
	`<SOH>A`	Send ASCII Status String
	`<SOH>a`	Send ASCII Extended Status String
	`<SOH>B`	Toggle Pause
	`<SOH>D`	SOH Shutdown
	`<SOH>E`	Send Batch Quantity
	`<SOH>F`	Send Status Byte
	`<SOH>U`	Update System Database with Current Database
System-Level Command	`<STX>A`	Set Time and Date
	`<STX>a`	Enable Feedback Characters
	`<STX>B`	Get Printer Time and Date Information
	`<STX>c`	Set Continuous Paper Length
	`<STX>d`	Set Double Buffer Mode
	`<STX>E`	Set Quantity for Stored Label
	`<STX>e`	Select Edge Sensor
	`<STX>F`	Form Feed
	`<STX>f`	Set Form Stop Position (Backfeed Command)
	`<STX>G`	Print Last Label Format
	`<STX>I`	Input Image Data
	`<STX>i`	Scalable Font Downloading
	`<STX>J`	Set Pause for Each Label
	`<STX>K`	Extended-System Commands
	`<STX>k`	Test RS-232 Port
	`<STX>L`	Enter Label Formatting Command Mode

Classification	Command	Comment
	`<STX>M`	Set Maximum Label Length
	`<STX>m`	Set Printer to Metric Mode
	`<STX>n`	Set Printer to Imperial Mode
	`<STX>O`	Set Start of Print (SOP) Position
	`<STX>o`	Cycle Cutter
	`<STX>P`	Set Printer to Character (HEX) Dump Mode
	`<STX>p`	Controlled Pause
	`<STX>Q`	Clear All Modules
	`<STX>q`	Clear Module
	`<STX>R`	Ribbon Saver On/Off
	`<STX>r`	Select Reflective Sensor
	`<STX>S`	Set Feed Rate
	`<STX>s`	Set Single Buffer Mode
	`<STX>t`	Test DRAM Memory Module
	`<STX>U`	Label Format String Replacement Field
	`<STX>V`	Software Switch Settings
	`<STX>v`	Request Firmware Version
	`<STX>X`	Set Default Module
	`<STX>x`	Delete File from Module
	`<STX>y`	Select Font Symbol Set
Extended System-Level Command	`<STX>Kb`	Backfeed Time Delay
	`<STX>Kc`	Configuration Set
	`<STX>KD`	Database Configuration
	`<STX>KE`	Character Encoding
	`<STX>KF`	Select Factory Defaults
	`<STX>Kf`	Set Present Distance
	`<STX>KM`	Memory Configuration, Internal Module (Non-Display

Classification	Command	Comment
	`<STX>KS`	Memory Configuration, Scalable Font Cache
	`<STX>KV`	Verifier Enable/Disable
	`<STX>KW`	Memory Configuration, Printable Label Width
	`<STX>Kx`	Delete Configuration File
	`<STX>KZ`	Immediately Set Parameter
Label Formatting Command	`:`	Set Cut By Amount
	`A`	Set Format Attribute
	`B`	Bar Code Magnification
	`C`	Set Column Offset Amount
	`c`	Set Cut By Amount
	`D`	Set Dot Size Width and Height
	`E`	Terminate Label Formatting Mode and Print Label
	`F`	Advanced Format Attributes
	`f`	Set Present Speed
	`G`	Place Data in Global Register
	`H`	Enter Heat Setting
	`J`	Justification
	`M`	Select Mirror Mode
	`m`	Set Metric Mode
	`n`	Set Inch (Imperial) Mode
	`P`	Set Print Speed
	`p`	Set Backfeed Speed
	`Q`	Set Quantity of Labels to Print
	`R`	Set Row Offset Amount
	`r`	Recall Stored Label Format
	`S`	Set Slew Speed

The first row also shows a partial comment "Models only)" above the KS row.

Classification	Command	Comment
	s	Store Label Format in Module
	T	Set Field Data Line Terminator
	X	Terminate Label Formatting Mode
	y	Select Font Symbol Set
	z	Zero (Ø) Conversion to "0"
	+ (>) (( )	"Make Last Field Entered Increment Numeric (Alphanumeric)(Hexadecimal)"
	− (<) ( ))	"Make Last Field Entered Decrement Numeric (Alphanumeric)(Hexadecimal)"
	+ (>)	Make Last Field Entered Increment Numeric (Alphanumeric)
	− (<)	Make Last Field Entered Decrement Numeric (Alphanumeric)
	^	Set Count by Amount

Appendix A: Supported Printers

TD-4T series	TD-4420TN
	TD-4520TN
	TD-4650TNWB
	TD-4650TNWBR
	TD-4750TNWB
	TD-4750TNWBR
TJ series	TJ-4005DN
	TJ-4010TN
	TJ-4020TN
	TJ-4021TN
	TJ-4021TNR
	TJ-4120TN
	TJ-4121TN
	TJ-4121TNR
	TJ-4420TN
	TJ-4520TN
	TJ-4620TN
	TJ-4422TN
	TJ-4522TN
	TJ-6421TN
	TJ-6521TN

Appendix B: Font Specification

The font specifications compatible with TD-4T and TJ Printer DPL Emulation are as follows:

Built-in Font	Fixed Font	0DMX.BMF
		1DMX.BMF
		2DMX.BMF
		3DMX.BMF
		4DMX.BMF
		5DMX.BMF
		6DMX.BMF
		7DMX.BMF
		8DMX.BMF
	Scalable Font	00DMX.TTF
		01DMX.TTF
		A0DMX.TTF
		A1DMX.TTF
		A2DMX.TTF
		A3DMX.TTF
Downloadable Font	Compatible	

Appendix C: Supported Barcodes

Barcode ID	Type
A / a	Code 3 of 9
B / b	UPC-A
C / c	UPC-E
D / d	Interleaved 2 of 5 (12 of 5)
E / e	Code 128
F / f	EAN-13
G / g	EAN-8
H / h	HBIC
I / i	Codabar
J / j	Interleaved 2 of 5 with a modulo 10 checksum
K / k	Plessey
L / l	Interleaved 2 of 5 with a modulo 10 checksum & shipping bearer bars
M / m	2 digit UPC addendum
N / n	5 digit UPC addendum
O / o	Code 93
p	Postnet
Q / q	UCC/EAN Code 128
R / r	UCC/EAN Code 128 K-Mart NON EDI barcode
S / s	UCC/EAN Code 128 Random Weight
T / t	Telepen
U	UPS MaxiCode
u	UPS MaxiCode with Byte Count
v	FIM
z	PDF417
Z	PDF417 with Byte Count
W1c	DataMatrix
W1C	DataMatrix with Byte Count
W1d	QR Code – Auto format
W1D	QR Code – Manual format
W1f	Aztec
W1F	Aztec with Byte Count
W1I	EAN 128 with auto subset switching
W1J	Code 128 with auto subset switching