brother

TJ-6421TN/TJ-6521TN

User's Guide (English)

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General Precautions

Observe all applicable regulations when disposing of these products.

DO NOT remove the labels affixed to this product. These labels provide operational information and indicate the product name and serial number.

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1. Introduction

1.1 Product Introduction

The robust design of the label printer can handle up to 450 mm (17.716") of ribbon and has the capacity to handle 172.7 mm (6.8") label rolls.

The label printer comes equipped with a number of functions, including:

- Built-in Ethernet
- USB 2.0 Ports (for connecting a keyboard or barcode scanner)
- Serial Interface (RS-232C)
- Wi-Fi and Bluetooth Interface Expansion Slot (for the optional WLAN / BT Interface (PA-WB-001))
- 4.3" Color Touchscreen
- GPIO Interface Expansion Slot (for the optional GPIO Interface (PA-GP-003))

The label printer uses its high-performance and high-quality built-in Monotype Imaging[®]
TrueType font engine with the CG Triumvirate Bold Condensed smooth scalable font. It also provides a choice of eight different sizes of the alphanumeric bitmap font and supports most of the standard barcode formats.

1.2 Additional Product Reference

For information on how to write custom programs for your label printer, see command reference guides on your model's **Manuals** page at <u>support.brother.com</u>.

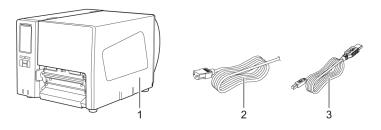
2. Operations Overview

2.1 Unpack the Label Printer and Check the Components

Note

Keep the packaging materials in case you need to ship the printer.

The components included in the box:

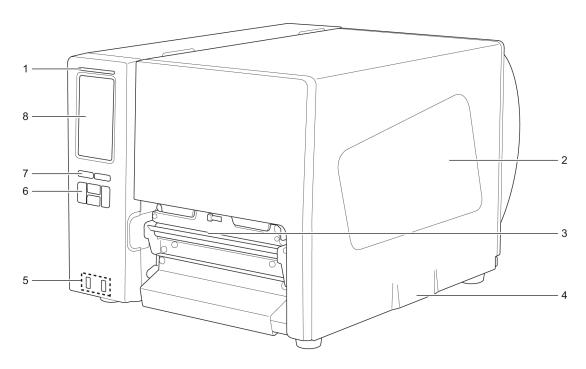


- 1. Label Printer
- 2. Power cord
- 3. USB cable

If any components are missing, contact Brother Customer Service or your local dealer.

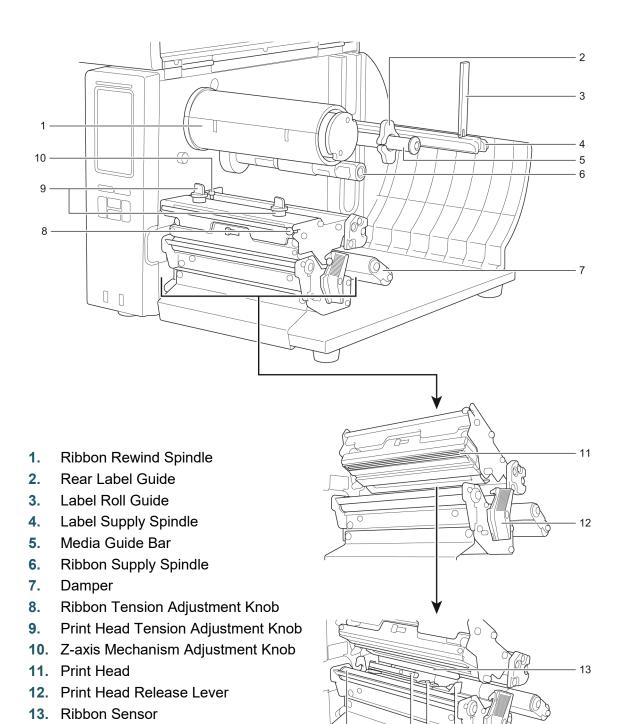
2.2 Printer Overview

2.2.1 Front View



- 1. Power LED
- 2. Media View Window
- 3. Media Output Slot
- 4. Media Cover
- 5. USB Ports
- 6. Navigation Buttons
- 7. Selection Buttons
- 8. Touchscreen

2.2.2 Interior View



17. Platen Roller

14. Front Label Guide

15. Black Mark Sensor (shown as △)

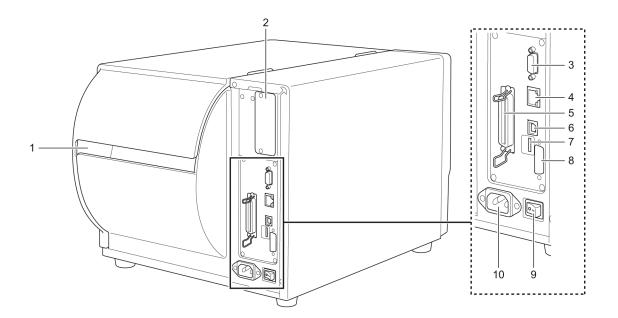
16. Gap Sensor (shown as ▽)

17

16 15

14

2.2.3 Rear View



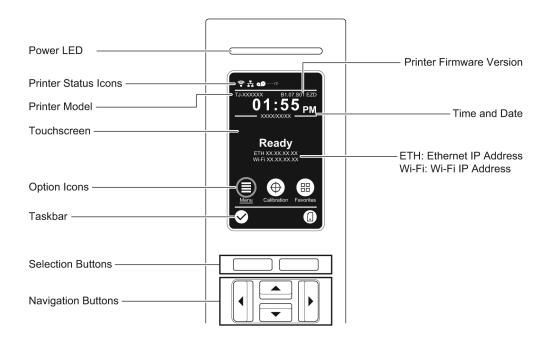
- 1. External Label Entry Slot
- 2. Wi-Fi and Bluetooth Interface Expansion Port 1
- 3. RS-232C Serial Port
- 4. Ethernet Port
- 5. Centronics Interface
- 6. USB Port (USB 2.0/Hi-Speed Mode)
- 7. microSD Card Slot ²
- 8. GPIO Interface³
- 9. Power Switch
- 10. Power cord socket

¹ For the optional WLAN / BT Interface (PA-WB-001).

² For the recommended microSD card types, see section <u>8.1 Recommended microSD Cards</u>.

³ For the optional GPIO interface.

2.3 Control Panel



2.3.1 Power LED and Buttons

Power LED Status Description

LED Color	Description
Green (Lit)	The power is on and the printer is ready to use.
Green (Flashing)	The printer is downloading data from a computer.The printer is paused.
Amber (Lit)	The printer is deleting data from memory.
Red (Lit)	The Print Head is open or there is a Cutter error.
Red (Flashing)	There is a printing error. For more information, see section <u>9.2 Error Messages</u> .

Selection and Navigation Buttons

Buttons	Function
Selection Buttons	Press to select an icon or menu on the Touchscreen after using the Navigation buttons, below.
Navigation Buttons	Use to navigate the Touchscreen and highlight icons and menus.

2.3.2 Home Screen Icons

Printer Status Icons

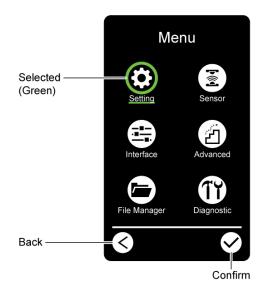
Icon	Description
	Wi-Fi device is ready
	(Available when the Wi-Fi interface is installed)
•	Bluetooth device is ready
*	(Available when the Bluetooth interface is installed)
<u> </u>	Ethernet is connected
0	Remaining media notification (%)
0.0	Ribbon capacity (m)
7	Thermal Print Head (TPH) requires cleaning

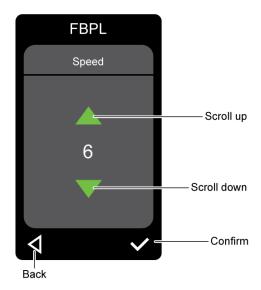
Option Icons

Icon	Function
	Access the Main Menu
	For more information, see section <u>2.3.3 Touchscreen</u>
	Overview.
\oplus	Calibrate the media sensor
	Go to the "Favorites" screen
(#)	For more information, see section <u>2.3.3 Touchscreen</u>
	<u>Overview</u> .
	Confirm your selection
(Feed one label

2.3.3 Touchscreen Overview

Select the icons to access printer features or change settings.





Access the Main Menu

Make sure the printer's Touchscreen displays "Ready". If not, press the Menu icon ...





Note

You can also use the Navigation buttons to move through the Touchscreen options. Press \P , , ♠, or ▼ to select the Menu icon, and then press the Selection button under the ☑ icon.

To select an option on the Main Menu, press the option's icon.



Note

You can also use the Navigation buttons to browse the options, and then press the button under the icon. To return to the previous screen, press the button under the icon.

Main Menu Overview

Use the Main Menu options to configure various printer settings without connecting the printer to a computer.

Icon	Option	Description
	Setting	Configure the printer's FBPL and ZPL2 settings. For more
		information, see section 6.1.1 FBPL Settings and
		6.1.2 ZPL2 Settings.
	Sensor	Calibrate the media sensor. We recommend calibrating
		the sensor every time you change the media.
	Interface	Configure the printer interface settings.
4	Advanced	Configure the printer's screen, initialization, cutter type, or media low warning settings.
	File Manager	Check or manage the available printer memory.
TY	Diagnostic	Check the printer status to help troubleshoot any issues.

Note

For more information about printer settings, see section <u>6. Change Printer Settings</u>.

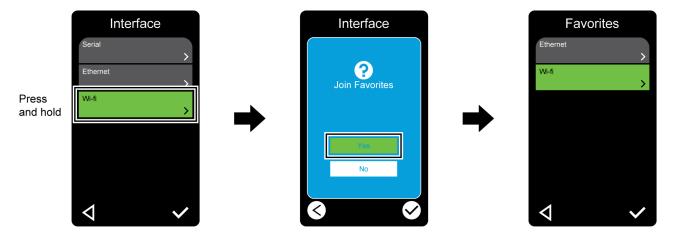
Favorites

Add frequently-used Main Menu options to "Favorites" for quick access. To display the "Favorites" list, press the Favorites icon .



To add an option to the "Favorites" list:

- 1. Press and hold the option you want to add to your favorites until "Join Favorites" appears.
- 2. Press "Yes".



To remove an option from the "Favorites" list:

- 1. Press and hold the option you want to remove from favorites until "Delete Favorites" appears.
- 2. Press "Yes".



3. Set Up Your Printer

3.1 Connect the Power Cord

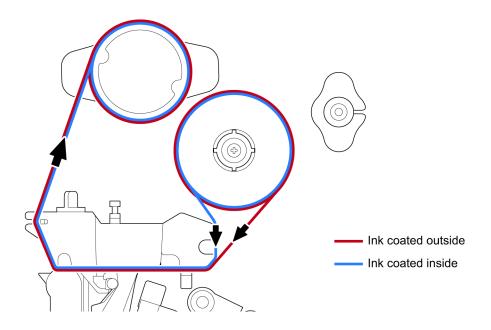
- 1. Place the printer on a flat, stable surface.
- 2. Make sure the Power Switch is in the OFF position.
- 3. Connect the printer to the computer using the included USB cable.
- 4. Plug the power cord into the power cord socket at the rear of the printer, and then plug the power cord into a grounded AC power source (earthed electrical socket).

Note

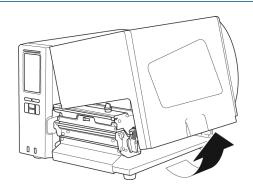
Before plugging the power cord into the printer's power cord socket, make sure the printer's Power Switch is in the OFF position.

3.2 Load the Ribbon

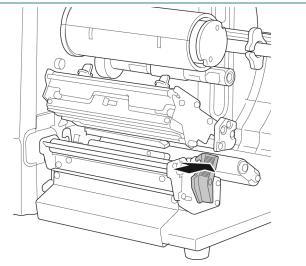
Ribbon loading path



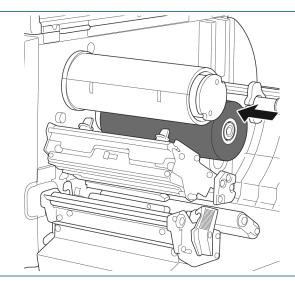
- Unplug the power cord from the printer or the AC power source.
- 2. Open the Media Cover.



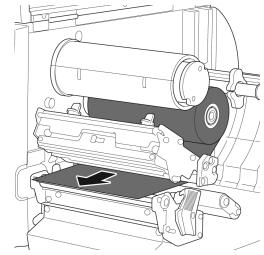
3. Push the Print Head Release Lever to open the Print Head.



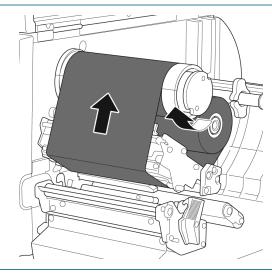
4. Install the ribbon onto the Ribbon Supply Spindle.



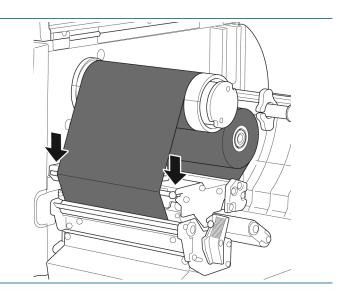
5. Thread the ribbon under the ribbon guide bar and through the Ribbon Sensor slot following the loading path printed on the Media Cover.



6. Wind the Ribbon Rewind Spindle clockwise about three to five turns until the ribbon is smooth, flat, and without wrinkles.

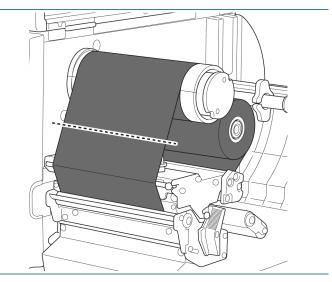


7. Close the Print Head on both sides and make sure it locks into place.



3.3 Remove Used Ribbon

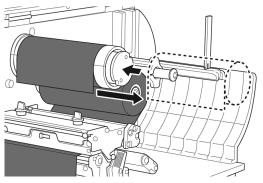
- 1. Unplug the power cord from the printer or the AC power source.
- 2. Cut the used ribbon with scissors along the dotted line, as shown in the illustration.



 While pushing the Ribbon Release Button, remove the ribbon from the Ribbon Rewind Spindle, and discard it.



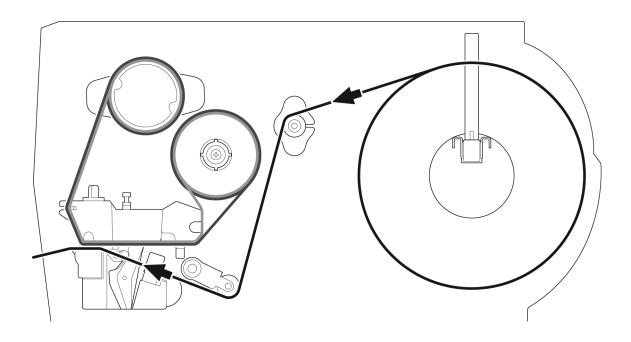
We recommend destroying the used ribbon if it shows any visible prints.



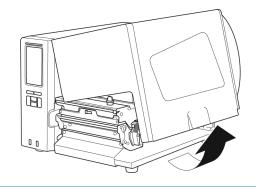
3.4 Load the Media

3.4.1 Load Label Roll

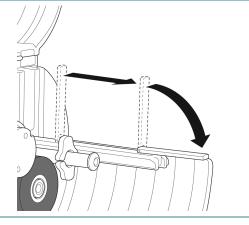
Label Roll loading path



- 1. Unplug the power cord from the printer or the AC power source.
- 2. Open the Media Cover.



3. Slide the Label Roll Guard horizontally to the end of the Label Supply Spindle, and then flip down the Label Roll Guard.

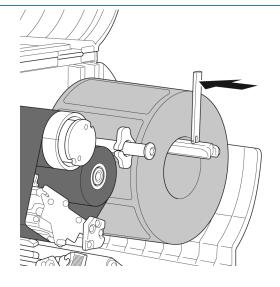


4. Place the label roll on the Label Supply Spindle, and then flip the Label Roll Guard upwards to hold it in place.

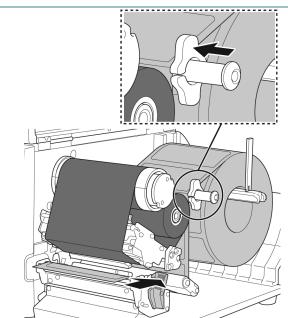


Note

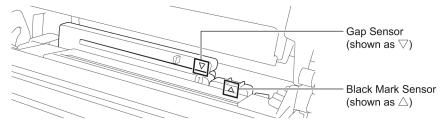
Make sure the label print side is on the outside of the roll.



- Push the Print Head Release Lever and thread the label through the Media Guide Bar, Damper, Media Sensor, and Front Label Guide to install the media.
- 6. Adjust the Rear Label Guide to fit the label width.



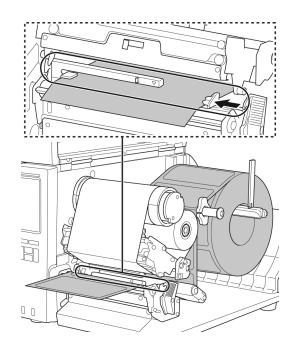
7. Move the Media Sensor to the correct position. Make sure the position of the Gap or Black Mark Sensor matches the position of the Gap/Black Mark on the label roll.



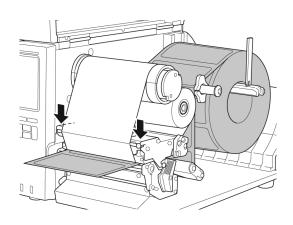
8. Adjust the Front Label Guide to fix the media position.

Note

- Make sure you thread the media through the Media Sensor.
- The sensor locations are marked by the triangle marks at the sensor housing.
- The Media Sensor position is adjustable. Make sure the position of the Gap or Black Mark Sensor matches the position of the Gap/Black Mark on the label roll.

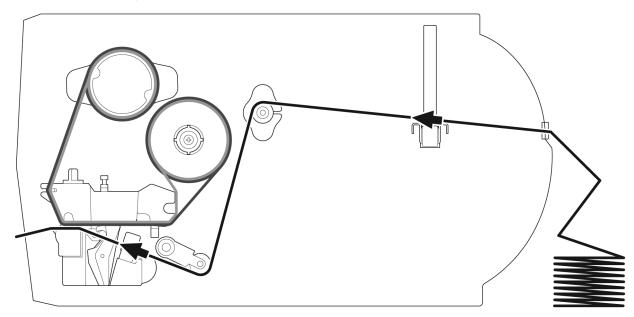


- 9. Close the Print Head on both sides and make sure it locks into place.
- 10. Plug in the power cord, and then turn on the printer.
- 11. Set the media sensor type and calibrate the selected sensor using the Touchscreen.

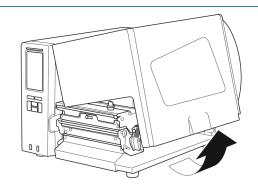


3.4.2 Load External Media

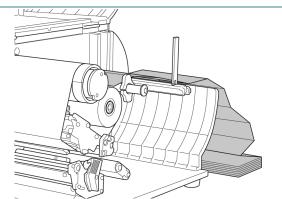
External media loading path



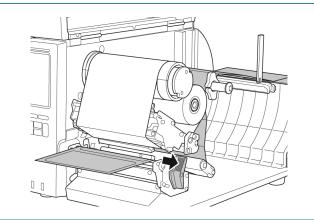
- 1. Unplug the power cord from the printer or the AC power source.
- 2. Open the Media Cover.



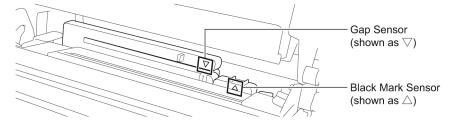
3. Insert the media through the External Label Entry Slot.



- Push the Print Head Release Lever and thread the label through the Label Supply Spindle, Media Guide Bar, Damper, Media Sensor, and Front Label Guide to install the media.
- 5. Adjust the Rear Label Guide to fit the label width.



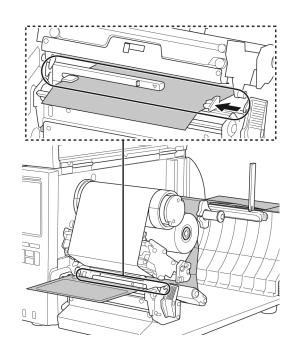
6. Move the Media Sensor to the correct position. Make sure the position of the Gap or Black Mark Sensor matches the position of the Gap/Black Mark on the label.



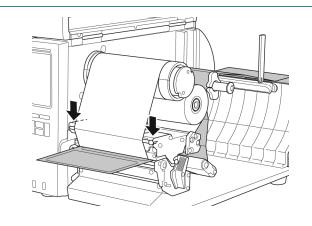
7. Adjust the Front Label Guide to fix the media position.

Note

- Make sure you thread the media through the Media Sensor.
- The sensor locations are marked by the triangle marks at the sensor housing.
- The Media Sensor position is adjustable. Make sure the position of the Gap or Black Mark Sensor matches the position of the Gap/Black Mark on the label.



- 8. Close the Print Head on both sides and make sure it locks into place.
- 9. Plug in the power cord, and then turn the printer on.
- 10. Set the media sensor type and calibrate the selected sensor using the Touchscreen.

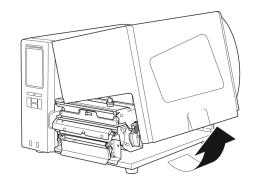


Note

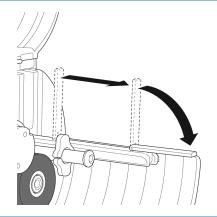
- Calibrate the Gap/Black Mark Sensor every time you change the media.
- For more information about sensor calibration, see section <u>7.2 Auto-Calibrating the Media</u>
 <u>Sensor using the BPM</u>.

3.4.3 Load the Media in Peeler Mode

- 1. Unplug the power cord from the printer or the AC power source.
- 2. Open the Media Cover.



Slide the Label Roll Guard horizontally to the end of the Label Supply Spindle, and then flip down the Label Roll Guard.

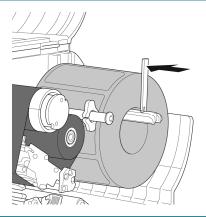


4. Place the label roll on the Label Supply Spindle, and then flip the Label Roll Guard upwards to hold it in place.

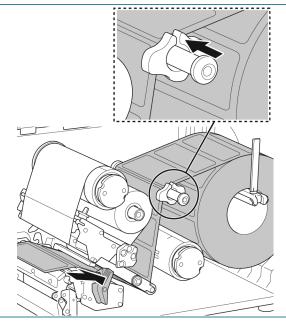


Note

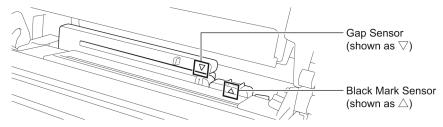
Make sure the label print side is on the outside of the roll.



- Push the Print Head Release Lever and thread the label through the Media Guide Bar, Damper, Media Sensor, and Front Label Guide to install the media.
- 6. Adjust the Rear Label Guide to fit the label width.



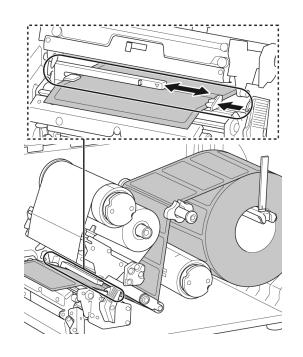
7. Move the Media Sensor to the correct position. Make sure the position of the Gap or Black Mark Sensor matches the position of the Gap/Black Mark on the label roll.



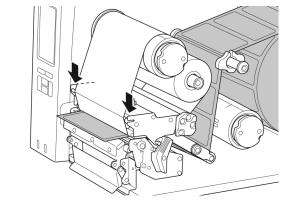
8. Adjust the Front Label Guide to fix the media position.

Note

- Make sure you thread the media through the Media Sensor.
- The sensor locations are marked by the triangle marks at the sensor housing.
- The Media Sensor position is adjustable. Make sure the position of the Gap or Black Mark Sensor matches the position of the Gap/Black Mark on the label roll.

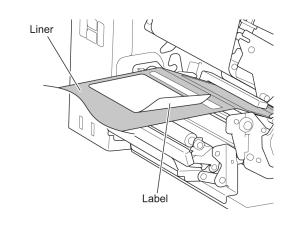


- 9. Close the Print Head on both sides and make sure it locks into place.
- 10. Plug in the power cord, and then turn on the printer.
- 11. Set the media sensor type and calibrate the selected sensor using the Touchscreen.
- 12. Perform the calibration using the Brother Printer Management Tool (BPM). For more information about sensor calibration, see section
 7.2 Auto-Calibrating the Media Sensor using the BPM.

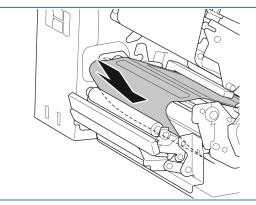


Note

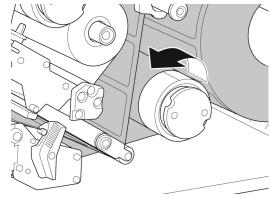
- Calibrate the Gap/Black Mark
 Sensor before loading media in
 Peeler Mode to avoid paper jams.
- Make sure you thread the label over the Media Guide Bar and under the Damper as shown.
- 13. Push the Print Head Release Lever.
- 14. Pull up the Peeler Cover, and then pull the label roll through the Media Output Slot.
- 15. Remove some labels leaving only the liner.



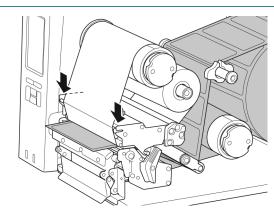
Thread the liner through the Label Peeler Cover Slot.



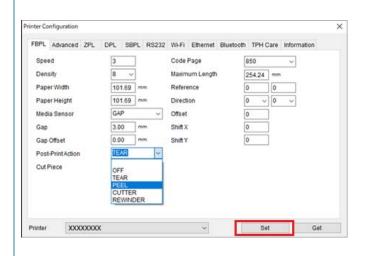
17. Adhere the liner to the Media Rewind Spindle. Wind the liner on the Media Rewind Spindle, making sure there are no wrinkles.



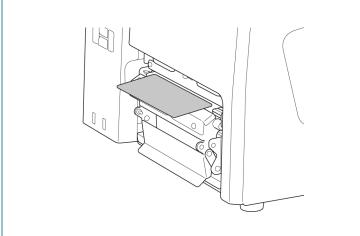
- 18. Close the Print Head on both sides and make sure it locks into place.
- 19. Close the Peeler Off Cover.



- 20. Set the printer mode to "Peel Off" using the Main Menu (Main Menu > Setting > Print Mode > Peel Off) or using the BPM as follows:
 - a. Start the BPM.
 - b. Click the **Printer Configuration** button.
 - c. Click the FBPL tab.
 - d. Click the PEEL option from the
 Post-Print Action drop-down list.
 - e. Click Set.



21. Press the right Selection button to feed a label to test.

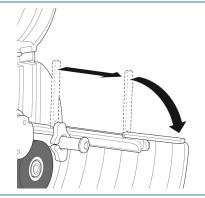


3.4.4 Load Media in Cutter Mode

- 1. Unplug the power cord from the printer or the AC power source.
- 2. Open the Media Cover.



3. Slide the Label Roll Guard horizontally to the end of the Label Supply Spindle, and then flip down the Label Roll Guard.

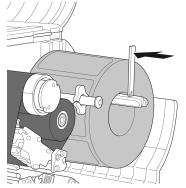


4. Place the label roll on the Label Supply Spindle, and then flip the Label Roll Guard upwards to hold it in place.

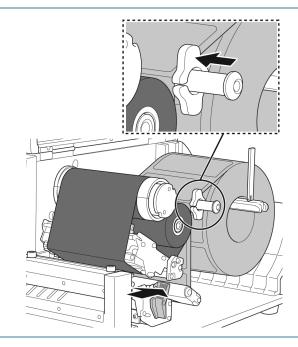


Note

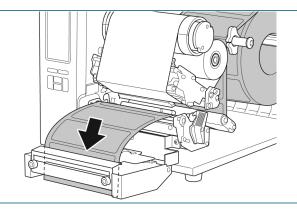
Make sure the label print side is on the outside of the roll.



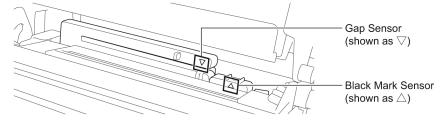
- Push the Print Head Release Lever and thread the label through the Media Guide Bar, Damper, Media Sensor, and Front Label Guide to install the media.
- 6. Adjust the Rear Label Guide to fit the label width.



- 7. Open the Label Cutter Cover Slot.
- 8. Feed the media through the Label Cutter Cover Slot.



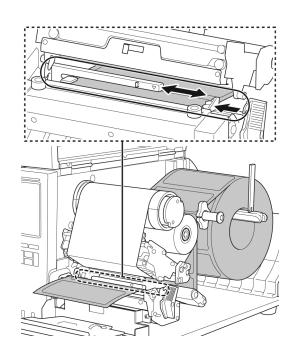
9. Move the Media Sensor to the correct position. Make sure the position of the Gap or Black Mark Sensor matches the position of the Gap/Black Mark on the label roll.



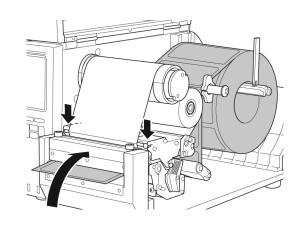
10. Adjust the Front Label Guide to fix the media position.

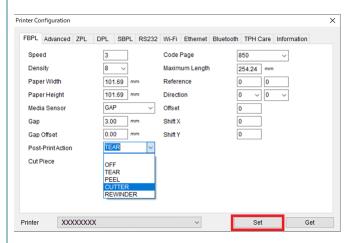
Note

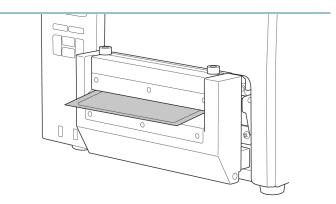
- Make sure you thread the media through the Media Sensor.
- The sensor locations are marked by the triangle marks at the sensor housing.
- The Media Sensor position is adjustable. Make sure the position of the Gap or Black Mark Sensor matches the position of the Gap/Black Mark on the label roll.



- 11. Close the Print Head on both sides and make sure it locks into place.
- 12. Close the Label Cutter Cover Slot.
- 13. Plug in the power cord, and then turn on the printer.
- 14. Set the media sensor type and calibrate the selected sensor using the Touchscreen.
- 15. Perform the calibration using the Brother Printer Management Tool (BPM). For more information about sensor calibration, see section <u>7.2 Auto-Calibrating the</u> <u>Media Sensor using the BPM</u>.
- 16. Set the printer mode to "Cutter" using the Main Menu (Main Menu > Setting > Print Mode > Cutter mode) or using the BPM as follows:
 - a. Start the BPM.
 - b. Click the **Printer Configuration** button.
 - c. Click the FBPL tab.
 - d. Click the CUTTER option from the Post-Print Action drop-down list.
 - e. Click Set.
- 17. Press the right Selection button to feed one label to test.

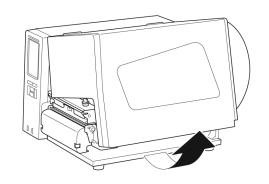




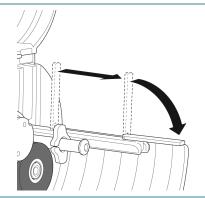


3.4.5 Load Media in Rewind Mode

- 1. Unplug the power cord from the printer or the AC power source.
- 2. Open the Media Cover.



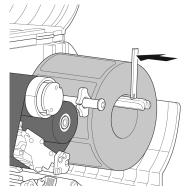
3. Slide the Label Roll Guard horizontally to the end of the Label Supply Spindle, and then flip down the Label Roll Guard.



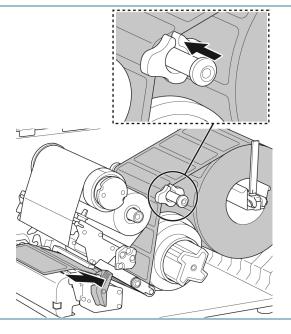
4. Place the label roll on the Label Supply Spindle, and then flip the Label Roll Guard upwards to hold it in place.



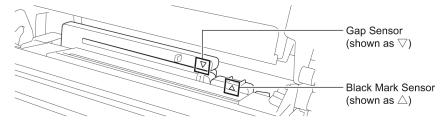
Make sure the label print side is on the outside of the roll.



- Push the Print Head Release Lever and thread the label through the Media Guide Bar, Damper, Media Sensor, and Front Label Guide to install the media.
- 6. Adjust the Rear Label Guide to fit the label width.



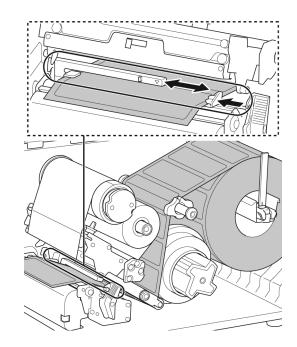
7. Move the Media Sensor to the correct position. Make sure the position of the Gap or Black Mark Sensor matches the position of the Gap/Black Mark on the label roll.

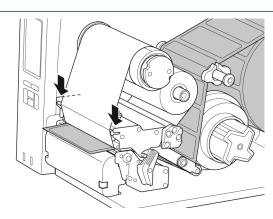


8. Adjust the Front Label Guide to fix the media position.

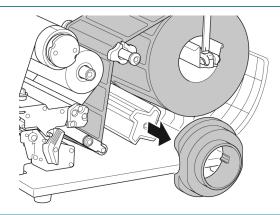
Mote

- Make sure you thread the media through the Media Sensor.
- The sensor locations are marked by the triangle marks at the sensor housing.
- The Media Sensor position is adjustable. Make sure the position of the Gap or Black Mark Sensor matches the position of the Gap/Black Mark on the label roll.
- 9. Close the Print Head on both sides and make sure it locks into place.
- 10. Plug in the power cord, and then turn on the printer.
- 11. Set the media sensor type and calibrate the selected sensor using the Touchscreen.
- 12. Perform the calibration first, and then set the printer mode to "Rewind".





 Pull out the Media Rewind Guide from the Media Rewind Spindle.

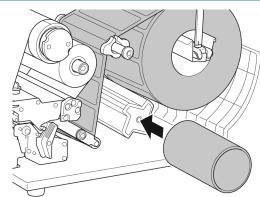


 Install a paper core onto the Media Rewind Spindle.

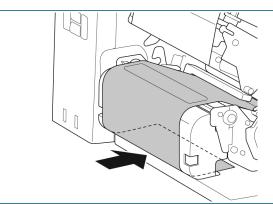


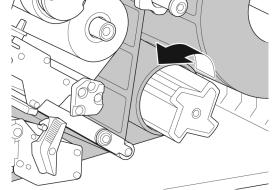
Note

A paper core is not included with this product.

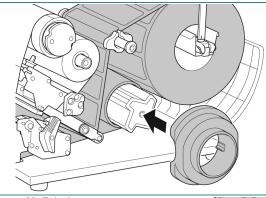


- 15. Push the Print Head Release Lever.
- Pull the label roll through the Media Output Slot.
- 17. Feed the leading edge of the media through the front panel Rewind Slot as shown.
- 18. Adhere the label to the paper core. Wind the media counterclockwise, making sure there are no wrinkles.

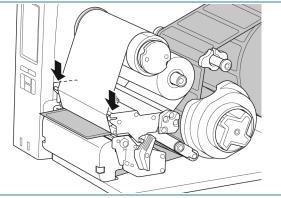




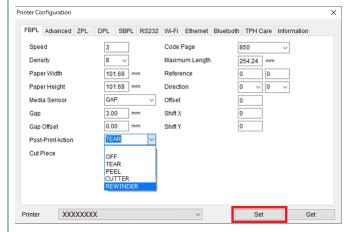
19. Install the Media Rewind Guide to fit the label width.



20. Close the Print Head on both sides and make sure it locks into place.



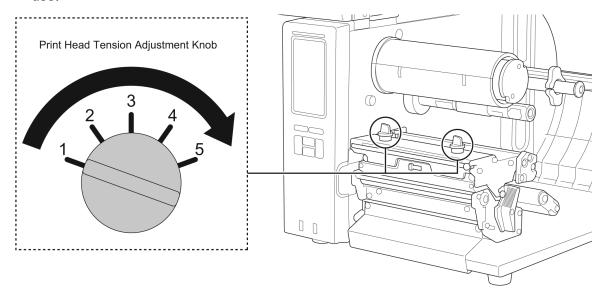
- 21. Set the printer mode to "Rewind" using the Main Menu (Main Menu > Setting > Print Mode > Rewind) or using the Brother Printer Management Tool (BPM) as follows:
 - a. Start the BPM.
 - b. Click the **Printer Configuration** button.
 - c. Click the FBPL tab.
 - d. Click the **REWINDER** option from the **Post-Print Action** drop-down list.
 - e. Click Set.



4. Improve Print Quality

4.1 Adjust Print Head Tension to Improve Print Quality

For the best print quality, adjust the Print Head using the Print Head Tension Adjustment Knobs. Choose one of five levels of tension adjustment depending on the media width you use.



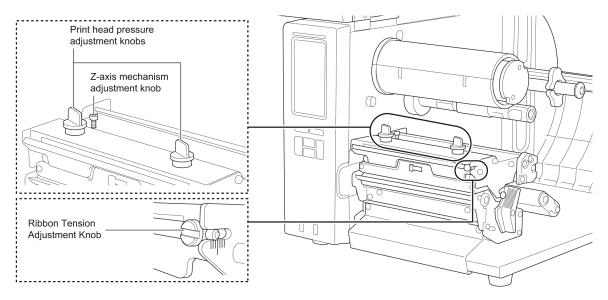
- If the label width is more than 101.6 mm (4"), adjust both Print Head Tension Adjustment Knobs to the same level.
- If the label width is less than 50.8 mm (2"), increase the tension of the left Print Head
 Tension Adjustment Knob and then decrease the tension of the right Print Head
 Tension Adjustment Knob by one level.

4.2 Adjust Ribbon Tension to Avoid Wrinkled Labels

Wrinkles can occur due to many factors, including media width and thickness, Print Head tension balance, ribbon film characteristics, and print density/darkness settings.

4.2.1 Adjust Ribbon Tension

To avoid wrinkled labels, adjust the ribbon tension using the Print Head Tension Adjustment Knobs, Ribbon Tension Adjustment Knob, and Z-axis Mechanism Adjustment Knob.



You can adjust the Print Head Pressure Adjustment Knobs manually, but should use a standard screwdriver to adjust the Ribbon Tension Adjustment Knob, which has five adjustment positions, as shown in the illustration.

Different ribbons and media widths require different tension to print correctly, which may require you to adjust the Ribbon Tension Adjustment Knob to get the best print quality.

Problem

The label wrinkles from the lower left 1. to the upper right.



direction

Action

- . Using a screwdriver, adjust the Ribbon Tension Adjustment Knob to the "2" or "1" position. Print a test label and see if the wrinkle is gone.
- 2. If not, decrease the right Print Head Pressure Adjustment Knob by one position. Print a test label and see if the wrinkle is gone. If not, decrease this knob by one more level and try again.
- 3. If the right Print Head Pressure Adjustment Knob is set to its lowest setting, "1", increase the left Print Head Pressure Adjustment Knob to the next higher level. Print a test label and see if the wrinkle is gone.
- 4. If not, increase the left Print Head Pressure Adjustment
 Knob again by one position, and test each time. If the left
 knob setting is at "5", the highest pressure index, and the
 wrinkle is still present, rotate both knobs back to the "1"
 setting, and then rotate the Z-axis Mechanism Adjustment
 Knob slightly clockwise and print a text label again.
- Continue adjusting the Z-axis Mechanism
 Adjustment Knob to fine-tune print head pressure distribution and remove the wrinkle.

Note

- The Z-axis Mechanism Adjustment Knob can be rotated counterclockwise only to the end of its thread.
- Loosen the nut at the base of the Z-axis
 Mechanism Adjustment Knob before adjusting
 the knob. Tighten the nut after adjusting the

 Z-axis Mechanism Adjustment Knob.
- For the first adjustment, turn the Z-axis
 Mechanism Adjustment Knob clockwise until you feel the knob touch the mechanism.
- If the wrinkle still exists, turn the Z-axis
 Mechanism Adjustment Knob clockwise 1/4
 circle at a time for adjustment.
- If adjusting the Z-axis Mechanism Adjustment Knob changes the direction of the wrinkle from "/" to "\", turn the Z-axis Mechanism Adjustment Knob counterclockwise to avoid the wrinkle.

The label wrinkles from the lower right to the upper left.



- Adjust the Ribbon Tension Adjustment Knob to the "4" or "5" position. Print a test label and see if the wrinkle is gone.
- If not, decrease on the left Print Head Pressure
 Adjustment Knob setting by one level, and then print
 a test label to see if wrinkle is gone.
- 3. If the left knob setting is at "1", the lowest pressure index, and the wrinkle is still present, increase on the right Print Head Adjustment Knob pressure by one, printing a test label each time, until the wrinkle is gone.

4.2.2 Change the Print Density/Darkness Settings

Note

For information about the print density/darkness, see sections <u>6.1.1 FBPL Settings</u> and <u>6.1.2 ZPL2 Settings</u>.

4.2.3 Try Different Media

Make sure you load the correct media for your print job.

Note

For more information about the supported media width and thickness, see section <u>8. Product Specifications</u>.

Note

If wrinkles continue to occur, contact Brother Customer Service or your local Brother dealer.

5. Printing

5.1 Printer Driver Installation

Note

The model name and serial number are located on the back of the printer.

Make sure you download the correct driver for your model:

TJ-6421TN: Brother TJ-64TJ-6521TN: Brother TJ-65

The driver installation method depends on the connection type:

- USB Connection (Windows/Mac/Linux)
- Bluetooth Connection (Windows)
- Wi-Fi Network Connection (Windows)
- Wired Network Connection (Windows)

5.1.1 USB Connection (Windows/Mac/Linux)

Note

Mac/Linux Users

For more information about driver installation, see the driver installation guide provided with the driver.

- 1. Connect your printer to the computer using the included USB cable.
- 2. Visit <u>support.brother.com</u>, go to your model's **Downloads** page, and download the latest printer driver and software.
- 3. Run the Seagull Driver Wizard application and select Install printer drivers and USB.
- 4. Follow the on-screen instructions.

Note

If you cannot install the printer driver:

- Install the printer driver manually:
 In the Seagull Driver Wizard application, click Install printer drivers > Others.
- Remove all printer drivers:
 In the Seagull Driver Wizard application, click Remove printer drivers > Automatically remove all Drivers by Seagull or Use advanced printer driver removal options.
- Reset the printer settings:
 Start the Brother Printer Management Tool (BPM), and then click Printer Function > Factory
 Default.

5.1.2 Bluetooth Connection (Windows)

Note

- To use Bluetooth, WLAN / BT Interface (PA-WB-001, not included) is required.
- Wi-Fi/Bluetooth connection and Ethernet connection cannot coexist.
- To change the connection, see section 6.3 Interface Settings or FBPL manual.
- 1. Check the Bluetooth Local Name:
 - Brother Printer Management Tool (BPM): Connect the printer to the computer using the included USB cable. Click **Printer Configuration** > **Bluetooth**.
 - Touchscreen: Press Interface > Bluetooth.
- Turn on your computer's Bluetooth feature, and then pair it with the printer by clicking Start >
 Settings > Devices > Bluetooth & other devices and enabling Bluetooth. Click Add
 Bluetooth or other device and select a printer.
- 3. Run the Seagull Driver Wizard application and select **Install printer drivers** and **Bluetooth**.
- 4. Follow the on-screen instructions.

Note

If you cannot install the printer driver:

- Remove the printer drivers:
 In the Seagull Driver Wizard application, click Remove printer drivers > Automatically remove all Drivers by Seagull or Use advanced printer driver removal options.
- Reset the printer settings:
 Start the BPM, and then click Printer Function > Factory Default.

5.1.3 Wi-Fi Network Connection (Windows)

Note

- To use Bluetooth, WLAN / BT Interface (PA-WB-001, not included) is required.
- Wi-Fi/Bluetooth connection and Ethernet connection cannot coexist.
- To change the connection, see section 6.3 Interface Settings or FBPL manual.

Make sure both your wireless router's/access point's and your printer's network settings are correctly set up. For more information, see the documentation provided with your wireless router/access point, or contact the router manufacturer, your system administrator, or Internet service provider.

- Configure the network settings:
- <u>Using the Brother Printer Management Tool (BPM)</u>
 - a. Connect your printer to the computer using the included USB cable.
 - b. Click **Printer Configuration > Wi-Fi**.
 - c. Specify the SSID, Encryption, and Key (Network Password), and then click Set.
 - d. Click Get.
 - e. Click Printer Function > Configuration Page.
 The network settings print. Confirm that the printer's IP address is correct.

Using the Touchscreen

- a. Press Interface > Wi-Fi.
- b. Specify the SSID, Security, and Password.
- c. When finished, the Wi-Fi icon and the printer's IP address appear on the screen.
- Visit <u>support.brother.com</u>, go to your model's **Downloads** page, and download the latest printer driver and software.
- 3. Run the Seagull Driver Wizard application and select **Install printer drivers** and **Network**.
- 4. Select your printer, and then click **Next**.
- 5. If your TCP/IP port does not appear in the list, click **Create port**, and then click **Standard TCP/IP port** > **New Port**.
- 6. Type your printer's IP address and port name, and then click **Next**.
- 7. Click Finish.

- 8. Return to the **Specify Port** window and select the port you created.
- 9. Follow the on-screen instructions.

Note

If you cannot install the printer driver:

- Remove the printer drivers:
 - In the Seagull Driver Wizard application, click Remove printer drivers > Automatically remove all Drivers by Seagull or Use advanced printer driver removal options.
- Reset the printer settings:
 Start the BPM, and then click Printer Function > Factory Default.

5.1.4 Wired Network Connection (Windows)

- 1. Connect both the printer and the computer to your router/access point using LAN cables. The printer automatically receives a default IP address and displays it on the screen.
- 2. Visit <u>support.brother.com</u>, go to your model's **Downloads** page, and download the latest printer driver and software.
- 3. Run the Seagull Driver Wizard application and select Install printer drivers and Network.
- 4. Select your printer, and then click **Next**.
- 5. If your TCP/IP port does not appear in the list, click **Create port**, and then click **Standard TCP/IP port > New Port**.
- 6. Type your printer's IP address and port name, and then click **Next**.
- 7. Click Finish.
- 8. Return to the **Specify Port** window and select the port you created.
- 9. Follow the on-screen instructions.

Note

If you cannot install the printer driver:

- Remove the printer drivers:
 - In the Seagull Driver Wizard application, select Remove printer drivers > Automatically remove all Drivers by Seagull or Use advanced printer driver removal options.
- Reset the printer settings:
 Start the Brother Printer Management Tool (BPM), and then click Printer Function > Factory
 Default.

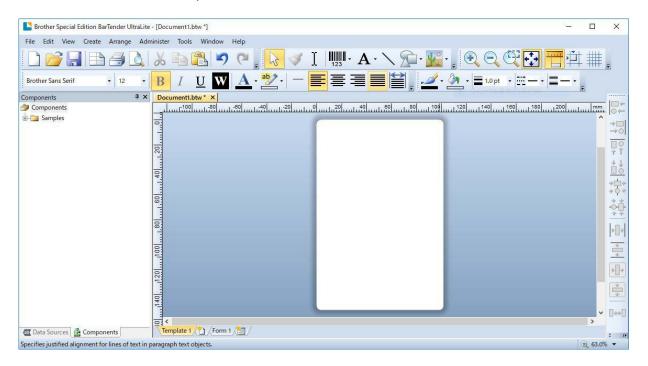
Wi-Fi / Bluetooth connection and Ethernet connection cannot coexist.

To change the connection, see section 6.3 Interface Settings or FBPL manual.

5.2 Create and Print Labels Using BarTender

Download BarTender, a free label creation tool from your printer's **Downloads** page at <u>support.brother.com</u>.

- 1. Launch BarTender.
- 2. Follow the on-screen steps to create a label.



Note

For more information on using BarTender, click Help in the menu bar.

3. Click **File > Print** to print the label.

6. Change Printer Settings

6.1 Setting Menu

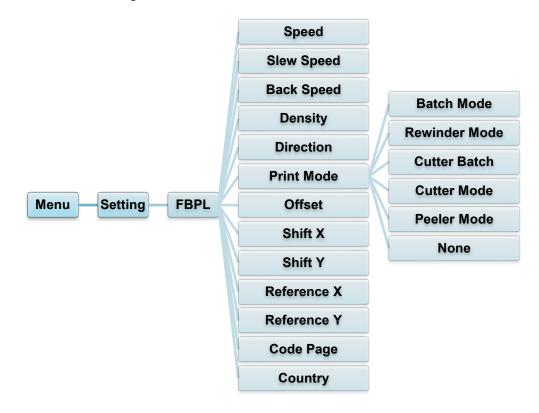
- 1. In the Touchscreen's Main Menu, press Setting.
- 2. Press Command Set, and then select the programming language you want.



3. Press the oicon.

6.1.1 FBPL Settings

Available FBPL settings:



Setting	Description		
Speed	Set the print speed.		
Slew Speed	Set the printer feed speed.		
Back Speed	Set the printer backfeed speed.		
Density	Adjust the print darkness/lightness. Settings range from 0 to 15. You may need to adjust the print density based on the media you are using.		
	Specify print direction.		
	DIRECTION 0 DIRECTION 1		
Direction	Direction		

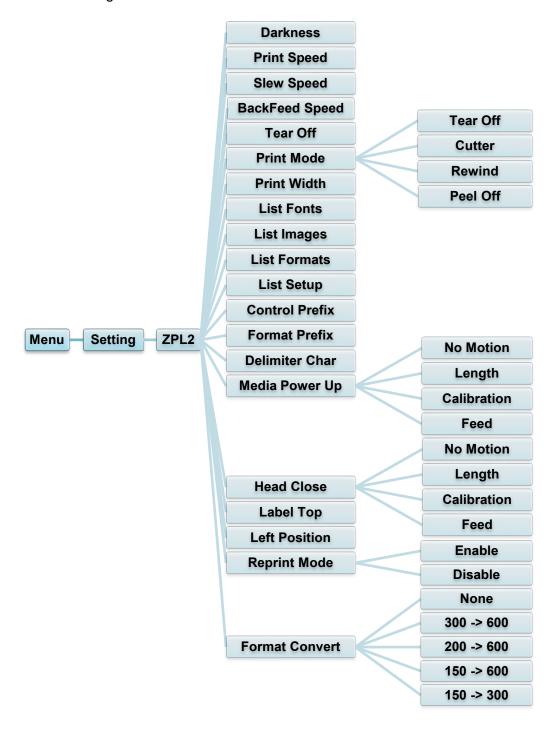
Setting	Description		
	Set the Print Mode.		
	Print Mode	Description	
	Batch Mode	When the image is printed, the Gap/Black Mark is fed through the tear plate for removal.	
Print Mode	None	The top of the next label is aligned with the Print Head burn line (Tear Off Mode).	
	Cutter Batch	Cuts the label once at the end of the printing job.	
	Rewinder Mode	Enables Rewinder Mode.	
	Peeler Mode	Enables Peeler Mode.	
	Cutter Mode	Enables Cutter Mode.	
Offset	Fine-tune the media stop location. Settings range from -999 dots to 999 dots.		
Shift X	Fine-tune the print position. Settings range from -999 dots to 999 dots.		
Shift Y			
Reference X	Set the origin of the printer coordinate system horizontally and vertically. Settings range from 0 dots to 999 dots.		
Reference Y			
Code Page	Set the international character set code page.		
Country	Set the country code.		

Note

If printing from the downloaded software/driver, the software/driver commands automatically overwrite the printer settings.

6.1.2 ZPL2 Settings

Available ZPL2 settings:



Setting	Description	
Darkness	Set the print darkness. Settings range from 0 to 30. You may need to adjust the print density based on the selected media.	
Print Speed	Set the print speed.	
Slew Speed	Set the printer feed speed.	
BackFeed Speed	Set the printer backfeed speed.	

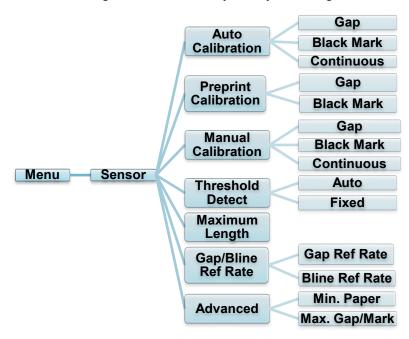
Setting	Description		
Tear Off	Fine-tune the media stop location. Settings range from -120 dots to 120 dots.		
Print Mode	Set the Print Mo	ode.	
	Print Mode	Description	
	Tear Off	The top of the next label is aligned with the Print Head burn line.	
	Peel Off	Enables Peeler Mode.	
	Cutter	Enables Cutter Mode.	
	Rewind	Enables Rewind Mode.	
During A NA/ Hala	Cat the area in the second	Ith Cattings was a frame 2 data to 000 data	
Print Width		Ith. Settings range from 2 dots to 999 dots.	
List Fonts	Print the current	printer fonts list.	
List Images	Print the current	printer images list.	
List Formats	Print the current	printer formats list.	
List Setup	Print the current printer configuration.		
Control Prefix	Set the control prefix character.		
Format Prefix	Set the format prefix character.		
Delimiter Char	Set the delimiter character.		
	Set the media a	ction you want when you turn the printer on.	
	Action	Description	
	Feed	The printer ejects one label.	
Media Power Up	Calibration	The printer calibrates the sensor levels, determines the label length, and feeds one label.	
	Length	The printer determines the label length and feeds one label.	
	No Motion	No action.	
	Set the media a	ction you want when you close the Print Head.	
	Action	Description	
	Feed	The printer ejects one label.	
Head Close	Calibration	The printer calibrates the sensor levels, determines the label length, and feeds one label.	
	Length	The printer determines the label length and feeds one label.	
	No Motion	No action.	
Label Top	Adjust the print position vertically on the label. Settings range from -120 dots to +120 dots.		
Left Position	Adjust the print position horizontally on the label. Settings range from -9999 dots to +9999 dots.		
Reprint Mode	=	label by pressing the up arrow (🔊) icon on the	
	Touchscreen.		
Format Convert	Select the bitmap scaling factor. The first number is the original DPI value; the second number is the DPI setting you want.		

Note

If printing from the downloaded software/driver, the software/driver commands automatically overwrite settings set from the Touchscreen.

6.2 Sensor Settings

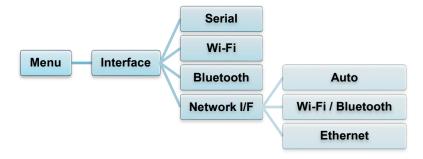
We recommend calibrating the sensors every time you change the media.



Setting	Description	
Auto Calibration	Set the media sensor type to calibrate the selected sensor automatically. The printer feeds up to three gap labels to calibrate the sensor sensitivity automatically.	
Preprint Calibration	Set the preprint media sensor type to calibrate the selected sensor automatically. The printer feeds two to three gap labels to calibrate the sensor sensitivity automatically.	
Manual Calibration	If you cannot use the "Auto Calibration" setting for your media, use the "Manual Calibration" setting to set the paper length and gap/BLINE size, and then scan the backing/mark to calibrate the sensor sensitivity.	
Threshold Detect	Set the sensor sensitivity to "Fixed" or "Auto".	
Maximum Length	Set the maximum length for label calibration.	
Gap/Bline Ref Rate	Adjusts sensitivity for gap (spacing) detection on die-cut labels or for black mark detection.	
Advanced	Set the minimum paper length and maximum gap/BLINE length to calibrate the sensor sensitivity automatically.	

6.3 Interface Settings

Set the printer interface settings.



6.3.1 Network I/F setting

Set the network interface as Wi-Fi / Bluetooth or Ethernet

Setting	Description	
Auto	If Wi-Fi / Bluetooth module is attached before turn on the power, printer will be Wi-Fi connect mode. Else if, printer will be Ethernet connect mode.	
Wi-Fi / Bluetooth	Printer keep being Wi-Fi / Bluetooth connect mode.	
Ethernet	Printer keep being Ethernet connect mode.	

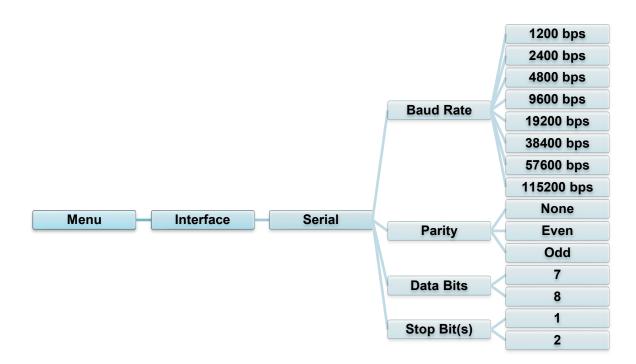
Note

Wi-Fi / Bluetooth connection and Ethernet connection cannot coexist.

We can also change this setting via FBPL command, please refer to FBPL manual if necessary. After switching the setting, printer will reboot automatically.

6.3.2 Serial Communication Settings

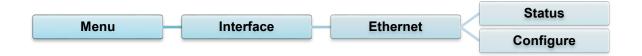
Set the printer RS-232 settings.



Setting	Description	
Baud Rate	Set the RS-232 Baud rate.	
Parity	Set the RS-232 Parity.	
Data Bits	Set the RS-232 Data bits.	
Stop Bit(s)	Set the RS-232 Stop bits.	

6.3.3 Ethernet Settings

Configure your printer's Ethernet (wired) connection and check its status.



Item	Description
Status	Check the Ethernet IP address and Mac address setting status.
Configure	DHCP: Enable (On) or disable (Off) the Dynamic Host Configuration Protocol (DHCP) network protocol. Static IP: Set the printer's IP address, subnet mask, and gateway.

Note

For information about installing a printer driver, see section <u>5.1.4 Wired Network Connection</u> (Windows).

Wi-Fi / Bluetooth connection and Ethernet connection cannot coexist.

To change the connection, see FBPL manual.

6.3.4 Wi-Fi Settings

Configure your printer's Wi-Fi connection and check its status.

Note

To use Wi-Fi, the optional WLAN / BT Interface (PA-WB-001) is required.

Wi-Fi / Bluetooth connection and Ethernet connection cannot coexist.

To change the connection, see FBPL manual.

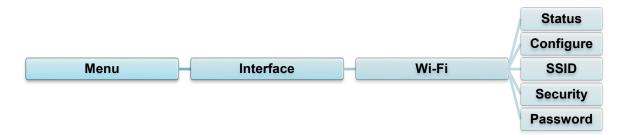
To use the Wi-Fi feature, set up your Enterprise configuration using the Brother Printer Management Tool (BPM). For more information on configuring Wi-Fi using the BPM, see the *Brother Printer Management Tool Quick Start Guide* on your model's **Manuals** page at support.brother.com.

When the Wi-Fi Interface is connected, the Wi-Fi icon and IP address appear on the screen, as shown.



Note

Make sure both your wireless router's/access point's and your printer's network settings are correctly set up. For more information, see the documentation provided with your wireless router/access point, or contact the router manufacturer, your system administrator, or Internet service provider.



Item	Description
Status	Check the Wi-Fi IP address and Mac address status.
Configure	DHCP: Enable (On) or disable (Off) the Dynamic Host Configuration Protocol (DHCP) network protocol. Static IP: Set the printer's IP address, subnet mask, and gateway.
SSID	Set the SSID (Network Name).
Security	Select the Wi-Fi encryption.
Password	Set the password (Network Key).

Note

For information about installing the printer driver, see section <u>5.1.3 Wi-Fi Network Connection</u> (Windows).

6.3.5 Bluetooth Settings

Note

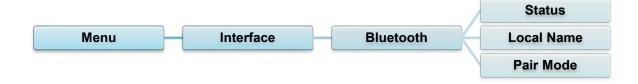
To use Bluetooth, the optional WLAN / BT Interface (PA-WB-001) is required.

Wi-Fi / Bluetooth connection and Ethernet connection cannot coexist.

To change the connection, see FBPL manual.

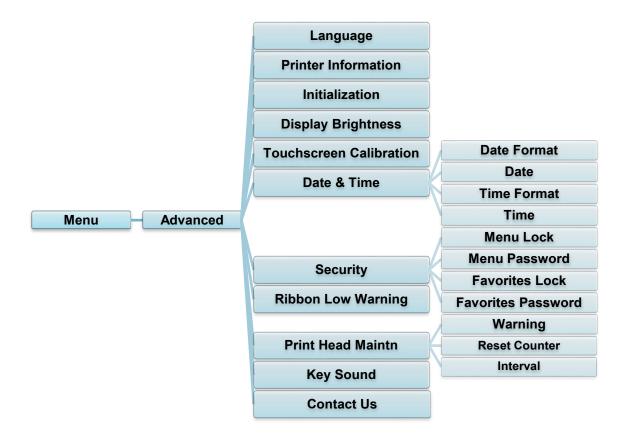
Configure your printer's Bluetooth connection, check its status, and reset the local name. Enable the Bluetooth feature to allow your mobile device to discover and connect to your printer.





Item	Description	
Status	Check the Bluetooth setting status.	
Local Name	Reset the Bluetooth Local name.	
Pair Mode	Set the local PIN for Bluetooth.	

6.4 Advanced Settings



Item	Description	
Language	Specify the screen language.	
Printer Information	Check the printer serial number, printed mileage (in./m), number of printed labels (pcs), and cutting counter.	
Initialization	Restore the printer settings to the default settings.	
Display Brightness	Adjust the screen brightness. Settings range from 0 to 100.	
Touchscreen Calibration	Calibrate the Touchscreen.	
Date & Time	Adjust the date and time displayed on the screen.	
Security	Set the password for locking the menu or favorites. The default password is 8888.	
Ribbon Low Warning	Set the alert to warn you when the ribbon is running low. Example: if you set the alert to start at 30 m, the icon appears in red if the remaining ribbon length is less than 30 m.	

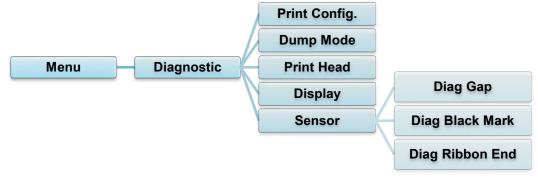
Item	Description		
	Check Print Head status and maintenance notifications.		
	Item	Description	
Print Head Maintn	Warning	Enable or disable the Print Head cleaning warning. If enabled and the Print Head reaches the limit, a reminder to clean the Print Head appears on the Touchscreen. The default setting is "Disable".	
	Reset Counter	Reset the Print Head warning after you clean the Print Head.	
	Interval	Set the mileage for displaying the Print Head cleaning warning. You must enable the "TPH warning lock" first. The default setting is 1 km.	
Key Sound	Enable or disable the sound made when you press buttons or icons.		
Contact Us	Display a QR code to access the Brother support website at support.brother.com using a mobile device.		

6.5 File Manager

Check the printer's available memory, show the files list, delete the files, or run the files that are saved in the printer's DRAM/Flash/Card memory.



6.6 Diagnostic Functions



Item	Description		
Print Config.	Print the current printer configuration. On the configuration printout, there is a Print Head test pattern, which is useful for checking if there is dot damage in the Print Head Heating Element.		
Dump Mode	Capture the data from the communications port and print out the data received by the printer. In Dump Mode, all characters are printed in two columns. The characters in the left column are from the printer's system and those in the right column are their hexadecimal representation. This allows you to verify and debug the program.		
	Note Dump Mode requires 101.6 mm (4") paper width.		
Print Head	Check for any visible dots and the Print Head's temperature.		
Display	Check the screen color status.		
	Check the sensors' intensity and reading status.		
	Item	Description	
Sensor	Diag Gap	Return current value from GAP sensor.	
	Diag Black Mark	Return current value from Black Mark sensor.	
	Diag Ribbon End	Return current value from Ribbon End sensor.	

7. Brother Printer Management Tool (BPM)

The Brother Printer Management Tool (BPM) is an integrated tool that lets you:

- Check a printer's status and settings
- Change printer settings
- Send additional commands to a printer
- Download graphics and fonts
- Create a printer bitmap font
- Download and update firmware
- Configure the wireless LAN (Wi-Fi) and Bluetooth settings

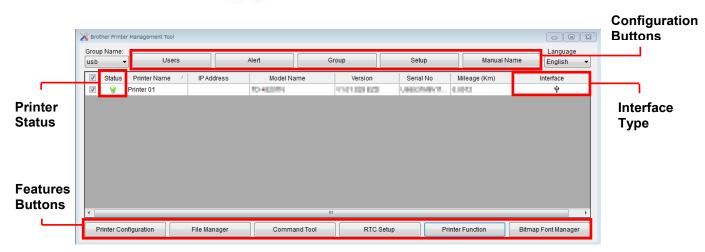
Using this tool, you can also review your printer's status and settings to troubleshoot any problems.

7.1 Start the BPM

Double-click the BPM icon



on your computer's desktop to launch BPM.



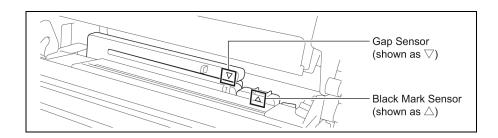
Use the BPM's main screen to access the following options:

- **Printer Configuration**
- File Manager •
- **Command Tool**
- RTC Setup
- **Printer Function**
- Bitmap Font Manager

For more information, see Brother Printer Management Tool Quick Start Guide on your model's Manuals page at support.brother.com.

7.2 Auto-Calibrating the Media Sensor using the BPM

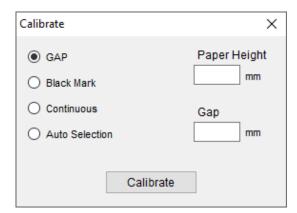
Use the BPM to set the media sensor type to either Gap Sensor or Black Mark Sensor and to calibrate the selected sensor.



The Gap Sensor (transmissive sensor) detects the beginning of the label and the printer feeds the label to the correct position.

The Black Mark Sensor (reflective sensor) detects the black mark on the media and the printer feeds the media to the correct position.

- Make sure the media is already installed and the Print Head is closed. (See section 3.4 Load the Media.)
- 2. Turn on the printer.
- 3. Start the BPM.
- Click the Printer Function button.
- 5. Click the Calibrate button.
- 6. Select the sensor media type and click **Calibrate**.



8. Product Specifications

Display		
LCD	4.3" color display, 480 px × 272 px, Resistive Touchscreen	
	Printing	
Print Method	Thermal Transfer and Direct Thermal	
Maximum Print Width	168 mm (6.61")	
	TJ-6421TN	
	14,732 mm (580")	
Maximum Print Length	TJ-6521TN	
	6,604 mm (260")	
	TJ-6421TN	
	305 mm (12") / second	
Maximum Print Speed	TJ-6521TN	
	254 mm (10") / second	
Print Resolution	TJ-6421TN	
	203 dpi	
	TJ-6521TN	
	300 dpi	

Size		
	357 mm (W) x 313 mm (H) x 510 mm (D)	
Dimensions	14.05" (W) x 12.32" (H) x 20.08" (D)	
Weight	Approximately 17.9 kg (39.46 lbs)	
	Interface	
USB	USB Ver. 2.0 (High Speed) (Type B)	
Serial	RS-232	
Wired LAN	10/100 Mbps	
LICE Hoot Dort	Stand-alone: USB keyboard, USB scanner	
USB Host Port	Storage: USB thumb driver	
Bluetooth (Optional)	Wi-Fi and Bluetooth coexist module	
Bluetooth	Bluetooth Ver.5.0	
Dideroorii	SPP (Bluetooth Classic), GATT (Bluetooth Low Energy)	
Wi-Fi (Optional)	IEEE 802.11a/b/g/n	
	Open, WEP-Open, WPA-PSK/WPA2 (AES and TKIP)	
Wi-Fi Security	- 802.11i	
	- WPA2-Enterprise: EAP-FAST, EAP-TTLS, EAP-TLS, PEAPv0	
Environment		
Tomporaturo	Operation: 0°C - 40°C (32°F - 104°F)	
Temperature	Storage: -40°C - 60°C (-40°F - 140°F)	
Humidity	Operation: 25% - 85% (without condensation)	
Turnialty	Storage: 10% - 90% (without condensation)	
Power Supply		
	Auto sensing power supply	
Power Supply	Input: AC 100V - 240V, 4A - 2A, 50Hz - 60Hz	
	Total 243.4 W	

Paper Specification		
Media Type	Continuous, die-cut, black mark (bottom side black mark only), fan-fold, notch (outside wound)	
Wound Type	Outside wound	
Media Width	50.8 mm - 172.7 mm (2" - 6.8")	
Media Thickness	0.06 mm - 0.268 mm (2.36 mil - 10.5512 mil)	
Roll Outside Diameter (maximum)	208.3 mm (8.2")	
Core Size	38.1 mm / 76.2 mm (1.5" / 3")	
Media Sensor	 Gap transmissive sensor (Position adjustable) Black mark reflective sensor (Bottom black mark sensor, position adjustable) Ribbon End sensor 	
	Ribbon Encoder sensor	
	Head open sensor	
	Ribbon Specification	
Length	450 mm (17.716") long, max. Outside Diameter 81 mm (3.18")	
Core Size	25.4 mm (1") (ink coated outside or inside)	
Ribbon Width	50.8 mm - 178 mm (2" - 7")	
	Other	
	GPIO Interface (DB15F)	
Option (Not User-Replaceable) ¹	 Cutter WLAN / BT Interface (802.11 a/b/g/n/ac Wi-Fi with Bluetooth 4.2 combo module) Label Peeler 	
	Internal Rewinder Kit (5" O.D.)	
Ode128UCC, Code128 subsets A、B、C, EAN128, Interleaved 2 of 5 Interleaved 2 of 5 with check digit, Standard 2 of 5, Insuatrial 2 of 5, Code39, Code39 with check digit, Code93, EAN13, EAN8, UPCA, UPC EAN and UPC 2 (5) digits add-on, Codabar, Postnet, MSI, MSI with chedigit, PLESSEY, China post, ITF14, EAN14, Code11, TELEPEN, TELEI number, PLANET, Code49, Deutsche Post Identcode, Deutsche Post Leitcode, LOGMARS, GS1 DataBar (Rev.0.04), RSS-Stacked (Rev.0.04) and Code Code Code Code Code Code Code Cod		
Printer Control Command	FBPL-EZD (Compatible with FBPL II, EPL II, ZPL II, DPL) FBPL-EZS (Compatible with FBPL II, EPL II, ZPL II, SBPL)	
• 8 alphanumeric bitmap fonts • Monotype Imaging® CG Triumvirate Bold Condensed scalable for		

¹ Only authorized Brother dealers should perform accessory replacements.

8.1 Recommended microSD Cards

microSD Card Class	Capacity	Approved Manufacturer
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	4 GB	Transcend
V2.0 Class 4	8 GB	Transcend
	16 CP	Transcend
V3.0 Class 10 UHS-I	16 GB	Sandisk
	32 GB	Transcend
V3.0 Class 10	16 GB	Kingston
V2.0 Class 4	16 GB	Sandisk

Note

- Make sure your microSD card uses the DOS FAT file system.
- The folders and files stored on the microSD card must be in the 8.3 file name format.
- MiniSD or SD card adapters are not included with your printer. You must purchase them separately.

9. Troubleshooting

9.1 Common Problems

This chapter explains how to resolve problems you may encounter when using the printer. If you have any problems with the printer, first make sure you have tried the following solutions. If, after reading this Troubleshooting chapter, you cannot resolve the issue, contact Brother Customer Service or your local Brother dealer.

Problem	Possible Cause	Solution
The Power LED is not lit.	The power cord is not correctly connected.	Make sure the printer is correctly connected to the power outlet (electrical socket) using the power cord.
	The Power Switch is off.	Turn the printer on.
The memory is full. (DRAM/Flash).	The printer's DRAM/Flash/ Card memory is full.	Delete unused files from the DRAM/Flash memory.
The printer is not printing.	The serial or USB cable is not connected correctly.	Reconnect the serial or USB cable.
	The wireless device is connected incorrectly to the printer.	Reset the device's wireless settings and set up the device again.
	The serial or USB cable is damaged.	Try a new cable.
	The port specified in the Windows driver is not correct.	Specify the correct port.
	The Print Head needs cleaning.	Clean the Print Head.
	Your custom program does not contain the necessary commands.	Make sure that your program contains the PRINT command at the end of the file and a CRLF at the end of each command line.
Nothing prints on the label.	The ribbon/media is loaded	Reload the media/ribbon.
	incorrectly.	Make sure the ink coated ribbon is set in the correct position.
	The ribbon/media is incompatible.	Install the correct ribbon/media.
	The print density/darkness is set incorrectly.	Adjust the print density/darkness.

Problem	Possible Cause	Solution
The print quality is poor.	The ribbon/media is loaded incorrectly.	Reload the media/ribbon.
	Dust or adhesive has	Clean the Print Head.
	accumulated on the Print Head.	Clean the Platen Roller.
	The print density is set incorrectly.	Adjust the print density and print speed.
	The Print Head is damaged.	Run the printer self-test and check the Print Head test pattern for missing dots.
	The ribbon/media is incompatible.	Install the correct ribbon/media.
	The Print Head tension is not set correctly.	Use the Print Head Tension Adjustment Knob to adjust the Print Head tension. (See section 4. Improve Print Quality)
		The Release Lever is not locked in place.
Printing is missing on the left or right side of label.	The label size is not specified correctly.	Check if the label size is set up correctly.
Blank labels with gray lines	The Print Head is dirty.	Clean the Print Head.
are printing.	The Platen Roller is dirty.	Clean the Platen Roller. (See section 10. Maintenance.)
Printing is irregular.	The printer is in Hex Dump Mode.	Turn the printer on and off to skip the Dump Mode.
	The printer's RS-232 communication is not set correctly.	Make sure the printer's RS-232 settings are set up correctly. For more information, see section 6.3.2 Serial Communication Settings.
The labels are fed incorrectly (skewed) when printing.	The media guide does not touch the edge of the media.	If the label is moving to the right side, move the Front Label Guide to the left.
		If the label is moving to the left side, move the Front Label Guide to the right.
Labels are being skipped during printing.	The label size is not specified correctly.	Check if the label size is set up correctly.
	The sensor sensitivity is not set correctly.	Calibrate the Gap Sensor either manually or automatically (See section <u>6.2 Sensor Settings</u>).
	The media sensor is dirty.	Clean the Gap/Black Mark Sensor using a compressed air or vacuum.
The printed media is wrinkled.	The Print Head tension is not set correctly.	Use the Print Head Tension Adjustment Knob to adjust the Print Head tension. (See section 4. Improve Print Quality)
	The ribbon is installed incorrectly.	Reinstall the ribbon. To install the ribbon roll, see section 3.2 Load the Ribbon.
	The media is installed incorrectly.	Reinstall the label roll. To install the label roll, see section 3.4 Load the Media.
	The print density/darkness is not set correctly.	Adjust the print density/darkness to improve the print quality.
	The media is not fed correctly.	Make sure the Front Label Guide touches the edge of the Media Guide Tips.

Problem	Possible Cause	Solution	
RTC time is incorrect when rebooting the printer.	The coin battery has dislodged.	Contact Brother Customer Service or your local Brother dealer.	
	The coin battery needs replacing.		
The left side printout position is incorrect.	The label size is set up incorrectly.	Set the correct label size.	
	The Shift X setting is incorrect.	Fine-tune the Shift X setting. For more information, see section <u>6.1.1 FBPL</u> <u>Settings</u> .	
The printing position of small labels is incorrect.	The media sensor sensitivity is not set correctly.	Calibrate the sensor sensitivity again.	
	The label size is incorrect.	Set the correct label size and gap size.	
	The Shift Y setting is incorrect.	Fine-tune the Shift Y setting. For more information, see section <u>6.1.1 FBPL</u> <u>Settings</u> .	
	The vertical offset setting in the driver is incorrect.	If using the BarTender software, set the Vertical Offset in the driver. Brother Action: Tear Off Qcourence: After Every Page Position Adjustments Position Adjustments Vertical Offset: 0.00 mm OK Cancel Apply Help	
The Touchscreen is dark and buttons are not working.	The cable between the main PCB and Touchscreen is loose.	Make sure that the cable between the main PCB and Touchscreen is securely connected.	
The Touchscreen is dark but the Power LED is lit.	The printer initialization is unsuccessful.	Turn the printer off and then on again. Initialize the printer.	
The Ribbon Encoder sensor does not work.	The Ribbon Encoder sensor connector is loose.	Contact Brother Customer Service or your local Brother dealer.	
The Ribbon End sensor does not work.	The connector is loose.	Contact Brother Customer Service or your local Brother dealer.	
	The Ribbon Sensor hole is covered with dust.	Clear the dust in the sensor hole by the blower.	
The Cutter is not working.	Cutter is not working. The Cutter connector is loose. Make sure the Cutter Cable is placed to correctly.		

9.2 Error Messages

If an error occurs, the Touchscreen displays the appropriate error message.

Here are some solutions to try when an error message appears.

Error Message	Possible Cause	Solution
Carriage Open	The Print Head is open.	Close the Print Head.
No Ribbon	The ribbon roll is empty.	Install a new ribbon roll. To install a new ribbon roll, see section <u>3.2 Load the Ribbon</u> .
	The ribbon roll is installed incorrectly.	Reinstall the ribbon roll. To install the ribbon roll, see section <u>3.2 Load the Ribbon</u> .
No Paper	The label roll is empty.	Install a new label roll. To install a new label roll, see section 3.4 Load the Media.
	The label roll is installed incorrectly.	Reinstall the label roll. To install the label roll, see section <u>3.4 Load the Media</u> .
	The Gap/Black Mark Sensor is not calibrated.	Calibrate the Gap/Black Mark Sensor.
Paper Jam	The Gap/Black Mark Sensor is not calibrated.	Calibrate the Gap/Black Mark Sensor.
	The label size is not set correctly.	Set the label size correctly.
	A paper jam occurred inside the printer.	Remove the jammed paper.
Take Label	Peeler Mode is enabled.	Remove the label.

10. Maintenance

To ensure optimal performance of your printer, follow the cleaning and maintenance recommendations in this section.

Cleaning

Regularly clean your printer to remove paper dust and traces of adhesives. Always clean the print head and sensors when you install a new media roll.

We recommend disinfecting the outside of your printer regularly to help prevent the spread of viruses.

Important

- DO NOT touch printer parts with your bare hands as these parts may get damaged or destroyed by static electricity. Before touching any printer parts, place the printer on an Electrostatic Discharge (ESD) grounding mat or use anti-static gloves.
- Turn the printer's power switch to "O" (off) before cleaning or disinfecting the printer. Leave the power cord connected to keep the printer grounded/earthed and to reduce the risk of electrostatic damage.
- Do not wear metal jewelry when cleaning inside the printer.
- Use the following cleaning materials:
 - Cotton swab
 - Lint-free cloth
 - Brush with soft non-metallic bristles
 - Vacuum cleaner (with a nozzle and hose that are conductive and grounded/earthed to drain off static build-up)
 - 75% Ethanol (for disinfecting)
 - Min.99% Isopropyl alcohol (for print head and platen roller cleaning)
 Use of other cleaning materials may damage the printer and void its warranty.
- Do not apply cleaning solutions directly into or on the printer the printer. Apply the solution to a clean lint-free cloth, and then use this cloth to clean the printer.
- Do not use canned air to clean inside the printer as it can blow dust and debris onto sensors and other critical components.
- Always clean the Print Head and sensors when you install a new media roll. If you
 accidentally touch the Print Head with bare hands, clean it with isopropyl alcohol (at least
 99%).
- Do not use medical alcohol as it may damage the Print Head. Use isopropyl alcohol or ethanol according to the manufacturer's safety guidelines, as applicable.
- Make sure you use cleaning solutions according to their manufacturers' instructions.
- Genuine Print Head cleaning pen
- Mild detergent (without chlorine)

Printer Part	Cleaning Method	Interval
Print Head	 Turn the printer off. Allow the Print Head to cool down for at least one minute. Wipe the Print Head with a cotton swab lightly moistened with isopropyl alcohol. 	Clean the Print Head when replacing the label roll with a new one.
	Cotton Swab Print Head Surface Print Head	Print Head Print Head Surface
Platen Roller	 Turn the printer off. Rotate the Platen Roller and wipe it thoroughly with a lint-free cloth or cotton swab lightly moistened with isopropyl alcohol. 	Clean the Platen Roller when replacing the new label roll with a new one.
Peel Bar	Wipe with a lint-free cloth lightly moistened with isopropyl alcohol.	As needed.
Sensor	Use a brush with soft non-metallic bristles or a vacuum cleaner to remove paper dust. Clean upper and lower media sensors to ensure their reliable performance.	Monthly.
Exterior	Wipe the printer's exterior with a lint-free cloth lightly moistened with water. If necessary, use a mild detergent, and then wipe it off with the 75% ethanol solution.	As needed.
Interior	Remove any dirt and lint with a vacuum cleaner, as described above, or use a brush with soft non-metallic bristles, and then use the 75% ethanol solution to wipe it.	As needed.

IMPORTANT

Securely dispose of any printers, components, and supplies if they are no longer going to be used. Ensure there is no jammed paper in the printer and destroy the thermal transfer ribbon if it has retained any visible prints.

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