BradyJet J4000

COLOR LABEL PRINTER

User Manual

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Safety and Environment

Please read and understand this manual before using the J4000 printer for the first time. This manual describes all of the main functions of the J4000 printer.

Precautions

Before using the J4000 printer, please note the following precautions:

- Read all instructions carefully before operating the printer and prior to performing any procedure.
- Do not place the unit on an unstable surface or stand.
- Do not place anything on top of the unit.
- Keep the top clear of obstructions.
- Always use the printer in a well ventilated area. Do not block the slots and opening on the unit, which are provided for ventilation.
- Only use the power source indicated on the rating label.
- Use only the power cord that comes with the unit.
- Do not place anything on the power cord.

Technical Support and Registration

Contact Information

For repair or technical assistance, locate your regional Brady Technical Support office by going to:

- **United States:** bradyid.com/techsupport
- **Canada:** bradycanada.ca/contact-us
- **Mexico:** bradyid.com.mx/es-mx/contacto
- **Latin America:** bradylatinamerica.com/es-mx/soporte-técnico
- **Europe**: bradyeurope.com/services
- **Australia:**bradyid.com.au/technical-support
- **Asia Pacific**: brady.co.uk/landing-pages/global-landing-page

Registration Information

To register your printer go to:

- bradycorp.com/register

Repair and Return

If for any reason you need to return the product for repair, please contact Brady Technical Support for repair and replacement information.

Document Conventions

When using this document, it is important that you understand the conventions used throughout the manual.

- All user actions are indicated by **Bold** text.
- References to menus, windows, buttons and screens are indicated by *Italicized* text.

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1 Introduction

The BradyJet J4000 Color Label Printer will print razor-sharp text and barcodes, vibrant colors and even stunning photo-realistic photographs directly onto rolls of labels, card stock and a variety of other approved media. To get Brady Workstation software, go to http://workstation.bradyid.com/.

For details on programming the printer, please see contact Technical Support. See "Technical Support and Registration" on page iv.

For instructions on general use, please see "Printing Labels" on page 26 of this manual.

System Specifications

The BradyJet J4000 printer has the following specifications:

- Up to 4800 DPI print resolution
- Draft Mode: 4.5" per second; Normal Mode: 1.8" per second; High Quality Mode: 0.8" per second print speed
- Single high capacity Cyan, Magenta, Yellow ink cartridge; process black
- 16.7 million colors
- Mobile see-through sensor for die-cut labels
- Supports labels from 0.5" (13mm) min. to 8.25" (209mm) max. width. (24" (609mm) max. printable height)
- One-year warranty

Physical Dimensions

Physical	Metric Units	U.S. Units
Dimensions (width, height, depth)	438 x 231 x 438 mm	17.25 x 9.1 x 17.25 in
Weight	16.6 kg	36.5 lb

Environmental Ranges

Environmental	Operation	Storage
Temperature*	50 to 105°F (10 to 41°C)	0 to 140°F (-18 to 60°C)
Relative Humidity	20 to 80% non-condensing	10 to 95% non-condensing
*Exposing the printer to direct sunlight is not recommended.		

Materials Storage Specifications

> **CAUTION!** *Consumable material for use with this unit must be stored in its original packaging in an environment in which the temperature is below 80°F and 60% relative humidity.*

Electrical Specifications

Input Voltage	100-240 V~
Current	5 A
Frequency	50/60 Hz

System Requirements

Following are the recommended requirements for the computer on which you install the Printer Driver:

- Operating system:
    - Microsoft® Windows® 7
    - Microsoft Windows 8
    - Microsoft Windows 10

Safety

The following information is necessary for the safe operation of the printer. Be sure to read this section prior to setting up or operating the printer.

Always be sure to adhere to the safety standards regulating your operating environment. Also adhere to the following safety rules included in or in addition to your specific standards:

> **WARNING!** Do not wear loose clothing—such as long sleeves or scarves—that could become caught in the unit.

> **CAUTION!** *Keep areas around the unit clean at all times.*

> **WARNING!** Do not remove exterior panels. No user serviceable parts inside.

Electrical Safety

> **CAUTION!** *Make sure the power outlet is grounded.*

> **WARNING!** To prevent fire or shock hazard, do not expose the unit to rain or moisture.

2   Setup

Unpacking the Printer

Save all packaging materials! These will be needed if you must ship the printer.

⚠️ **CAUTION!** The tear blade in the bottom front of the printer has a sharp edge.

What's in the Box

Make sure the printer box remains in the upright position at all times. Do not lay the box on its side.

1. Lift the printer out of the box and remove the protective plastic bag.
2. Place the printer on a flat, level surface with enough clearance on all sides to accommodate air flow and to open the cover.

Note: Do not place the printer near heat sources such as radiators or air ducts, or in a place subject to direct sun light, excessive dust, mechanical vibration or shock.

3. Remove the following additional items from the box:
- USB flash drive containing the following:
  - Printer Driver
  - Driver Installation Guide
  - J4000 User Manual
  - J4000 Quick Start Guide
- Power Adapter
- Power Cord
- USB Cable
- J4000 CMY Ink Tank Cartridge (J40-CMY)
- J4000 Ink Cartridge Storage Caps (J40-CAP)
- J4000 ALIGNMENT ROLL,B2595, 4 inches X 20 feet (101.mm x 6.1m)

Registration

Register your printer online at www.bradycorp.com/register and receive free product support and updates!

Printer Components

External Parts

1. **Pause Button**: Press to pause a job to allow for loading of label supply and ink cartridges. The printer pauses after the printing of the current label has finished.
2. **Power LED:** Illuminates when the printer is on and ready to receive print jobs.
3. **Load/Feed Button:** Pressed load supply if the printer does not automatically detect the stock. When supply is loaded each press of the button will cause one label to be fed through the printer.
4. **Ink Low LED:** Illuminates when there is 5% or less ink remaining.
5. **Unload Button:** Unloads the installed supply by reversing it through the printer.

Note: Make sure to tear off the printed labels before pressing the Unload Button.

6. **Label Tear Bar:** A serrated edge for cleanly tearing finished labels from the printer.

Note: For smoother label feeding leave the tear bar guard in place during printing.

7. **Pause LED:** Illuminates when the printer is paused.
8. **Cover:** Open to access inside of printer.
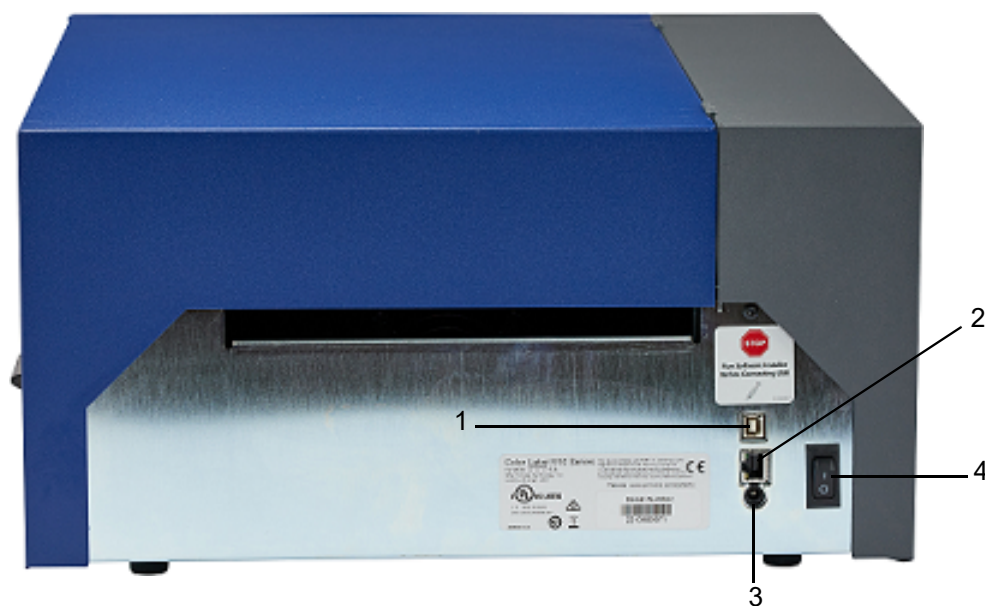
1. **USB Device Port:** Connect the printer to a computer's USB port to send labels created with Brady Workstation directly to the printer.
2. **Network Jack:** Connect the printer to the network with an Ethernet cable.
3. **Power Inlet:** The printer is equipped with a universal power supply and can be operated at a voltage of 100 to 240 V~, 50/60 Hz.
4. **On/Off Switch:** Controls the main power to the unit.

Internal Parts
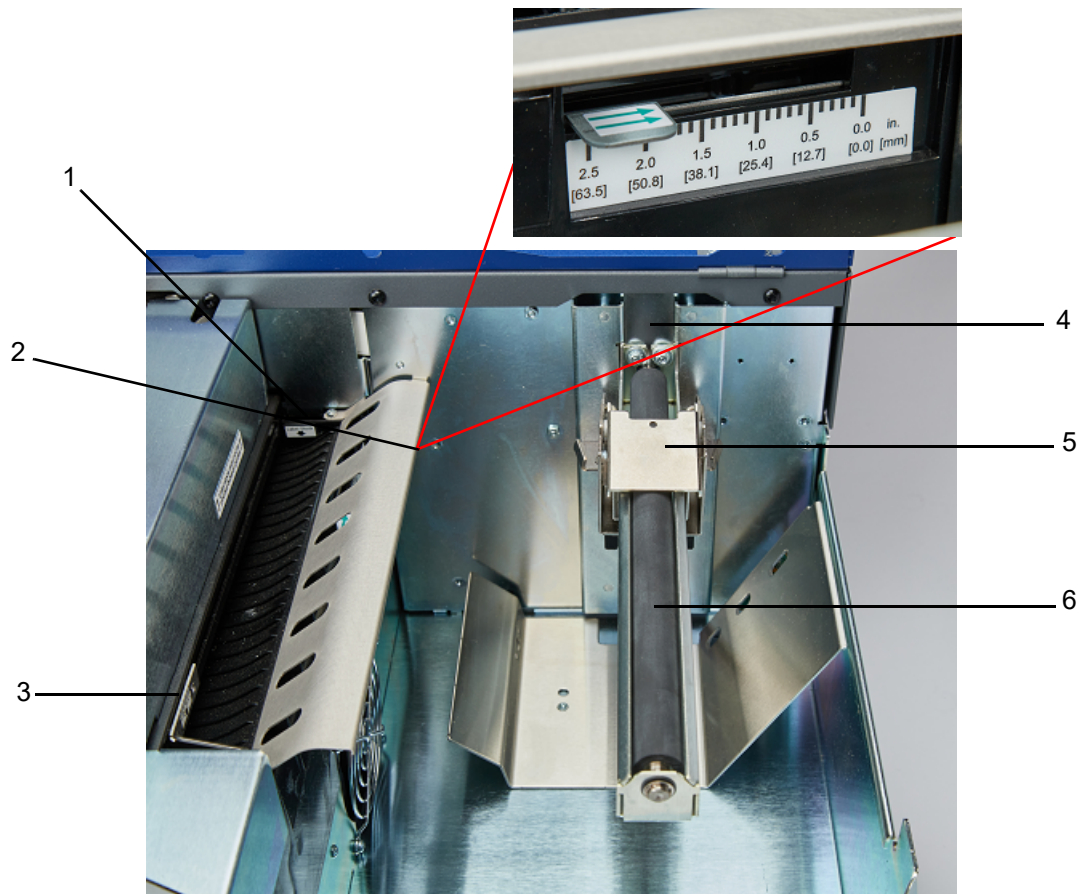
1. Fixed Throat Guide
2. Sensor Adjustment
3. Adjustable Throat Guide
4. Roll Stop
5. Roll Guide
6. Roll Arm

1. Grit Roller
2. Cutter Track
3. Pressure Rollers
4. Cutter Wheel Access Port
5. Maintenance Station (located under Cartridge Carrier)
6. Cartridge Carrier: Houses the ink cartridge
7. Supply Access Panel: Open to clear supply jams

Power

The printer is equipped with a universal power supply and can be operated at a voltage of 100 to 240 V~, 50/60 Hz.

> ⚠️ **CAUTION!** Use only the adapter and power cord provided with the printer.

To connect power and turn on the printer:

1. Connect the power cord to the power supply provided.

> ⚠️ **CAUTION!** Make sure the outlet is grounded.

2. Connect the power supply to the printer and plug into an electrical outlet.
3. Press the power button on the front of the printer.
4. Install the label supply following the instructions "Installing Label Supply" on page 11.

Software for Creating Labels

Install labeling software on your computer, set up the connection to the printer, then use the software to design labels and send them to the printer.

Brady Workstation software provides a variety of apps to simplify label creation for specific purposes. It also provides easy-to-use apps for custom label design. The printer comes with a license for the Brady Workstation Product.

To install Brady Workstation:

1. Make sure your computer is connected to the internet.
2. Go to workstation.bradyid.com/SFID.
3. Follow the instructions on the screen to download and install the software.
4. When you run the software and open an app that requires activation, follow the instructions on the screen to activate the software. Use the license ID and password on the printed insert that came with the printer.

For other Brady Workstation software or additional licenses, go to www.workstation.bradyid.com or contact your Brady representative.

Connecting the Printer

USB

Connect to the labeling software using supplied USB cable.

Plug the provided USB cable into the printer and the computer. Brady Workstation software automatically detects the printer when connected via USB cable.

> **Note:** If you are not using Brady Workstation software, you need to install the printer driver. See the Driver Installation Guide PDF file on the USB drive that came with the printer.

Ethernet Network

This section describes how to configure the printer to communicate via an Ethernet (TCP/IP) connection.

If using a Windows driver it is best to configure the Ethernet connection before installing the driver. If the driver is already installed before configuring the Ethernet connection, you may need to edit the port settings for the printer in Windows to update the IP address.

To configure network settings on the printer:

1. Make sure the printer is turned on.
2. Connect an Ethernet cable (not provided) to the back of the printer and the other end to the Ethernet port on the computer or Local Area Network (LAN).
3. (optional) Create a Host Name for the printer.
   - Printer installations using a host name perform best with a dynamically assigned IP address.
4. For IP Settings, select either the DHCP or Static check box.
   - DHCP addressing uses a DNS server to dynamically assign an IP address without user configuration.
   - For static addressing, you must supply the printer's IP address.
5. If Static was selected, connect the printer using the USB cable and fill in the following fields:
   - IP Address: Enter the printer's IP address.
   - Subnet Mask: Enter a subnet mask if you are using one.
   - Default Gateway: Enter the IP address of the default gateway.
   - DNS Server (Primary): Enter the IP address of the primary DNS server.
   - DNS Server (Secondary): Enter the IP address of the secondary DNS server.

Installing the Printer Driver

The printer driver for the BradyJet J4000 Color Label Printer can be found on the USB drive provided with the printer. It can also be downloaded from BradyID.com.

1. Insert the USB drive on your computer.
2. Navigate to the printer driver folder and double-click on it.
3. Double-click on the printer driver executable file and follow the on-screen instructions.

Installing Label Supply

Brady labels come equipped with smart-cell technology that enables the printer and Brady labeling software to recognize the type of label and automatically set many label formatting details.

Use only genuine Brady J4000 series labels.

1. Turn on the printer.
2. Open the cover using the handle on the side.

3. Lower the Roll Guide and pull it outward.
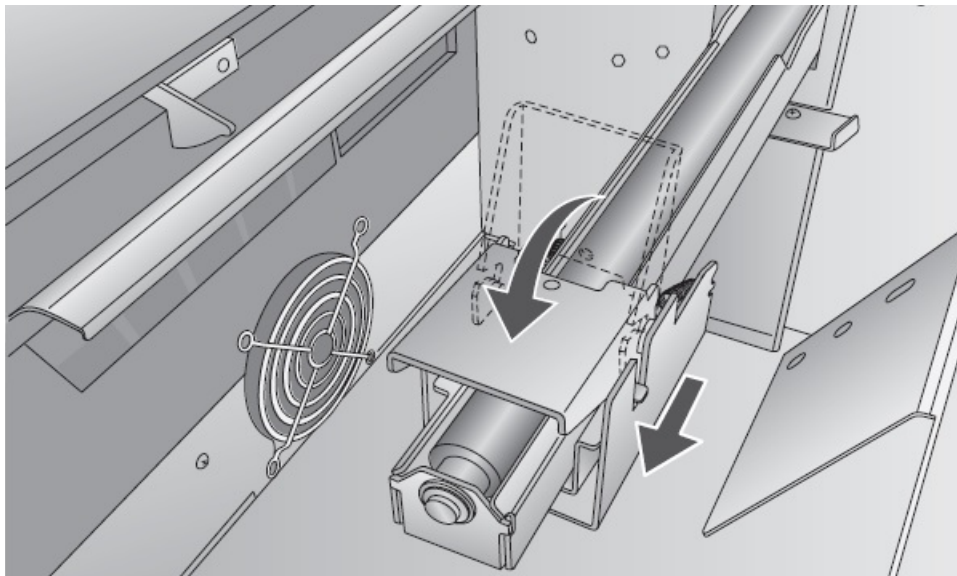
4. Remove any shipping tape from your label stock roll to ensure that it can unroll freely, making certain that no adhesive portion is exposed.

IMPORTANT! Any exposed adhesive surface can attach itself to the inner workings of the print mechanism and cause a media jam.

5. Place the supply on the roll arm and push it inward until it touches the roll stop.
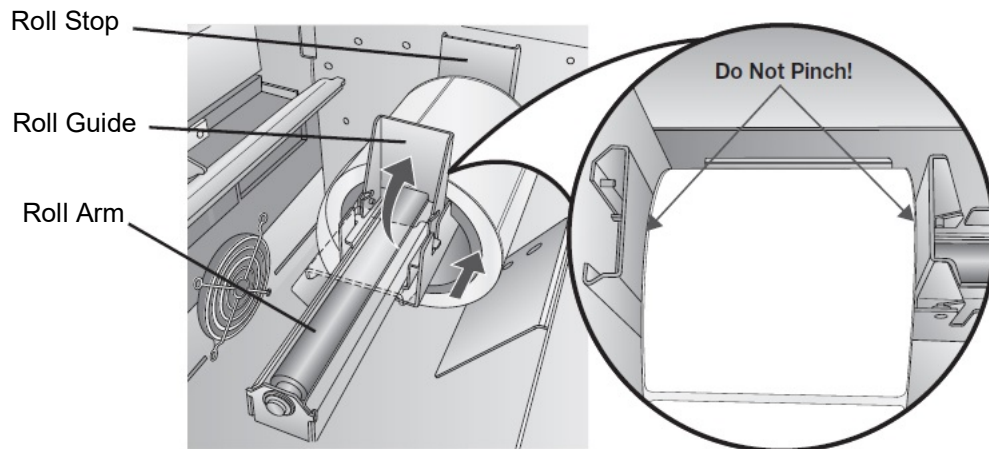
6. Flip the roll guide up and slide it inward until it touches the label supply.
    The roll guide will automatically pull back slightly to the correct position. There should be approximately a 1mm gap between the roll guide and the roll.
7. Pull the movable throat guide outward to make room for the label supply.

8. Place the leading edge of the supply under the "label supply" symbols on the throat guides. The supply should be placed far enough into the throat of the printer to correctly position the movable throat guide but not yet into the printer itself.

Moveable Throat Guide　　Fixed Throat Guide

Do Not Pinch!
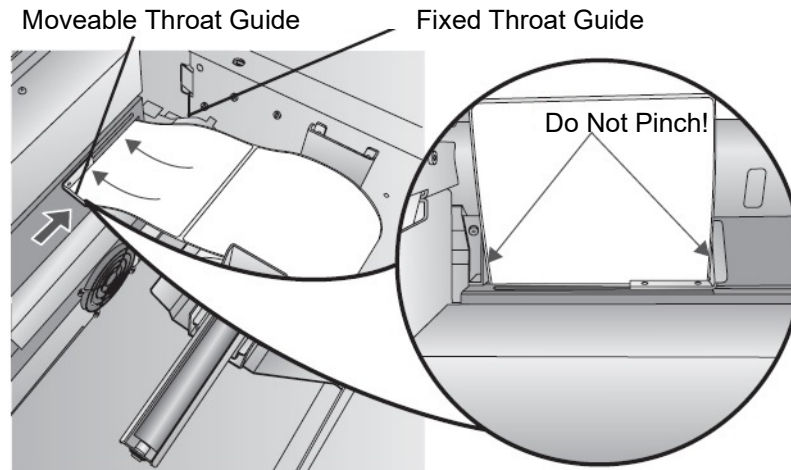
9. Slide the movable throat guide inward until it **almost** touches the supply.

10. Feed the supply further into the printer until it senses the label and automatically feeds it through the printer.

   If the printer fails to feed the label stock, press the load/feed button on the front panel while continuing to guide the label into the printer. If the printer does not automatically grab and feed the supply or continues to feed the labels without stopping check the gap sensor position or mode, see "Adjusting the Gap Sensor" on page 15 or "Setting the Supply Sensor Mode" on page 21.

Installing Ink Cartridges

IMPORTANT! The low ink warning light illuminates when there is 5% ink left in the cartridge. Pressing the load/feed button will allow you to continue printing but will turn off the low ink light.

1. Open the cover using the handle on the side.
2. Press the tab on the front of the cartridge carrier to release the ink cartridge.
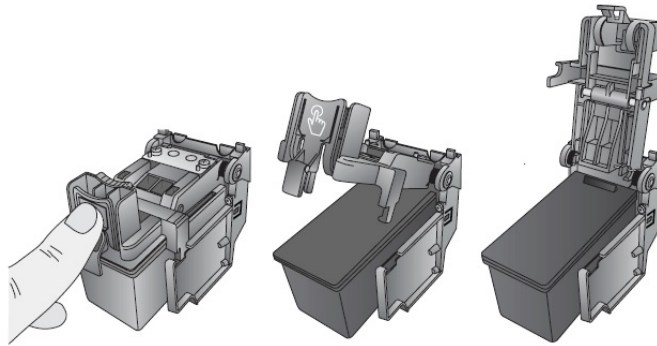
3. Remove the cartridge from the carrier.
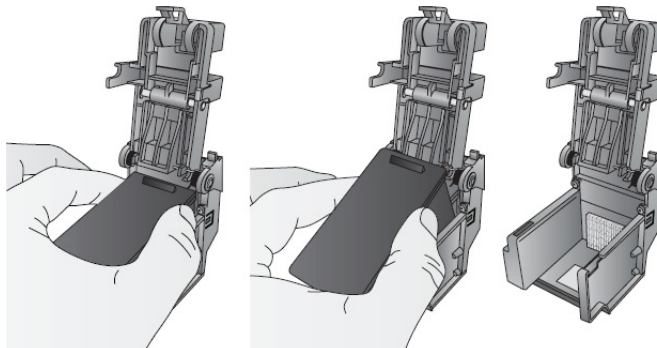
4. Remove the new ink cartridge from its packaging and pull off the tape covering the nozzles.

Remove tape

5. Place the new cartridge into the carrier by tilting the cartridge at a slight backward angle of approximately 30 degrees.

6. Close the lid on the carrier by pressing down until you hear a click.
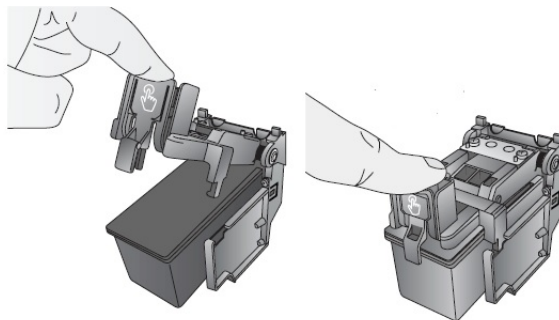
Adjusting the Gap Sensor

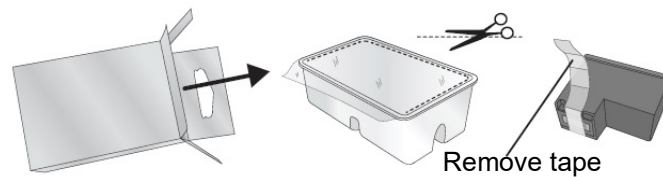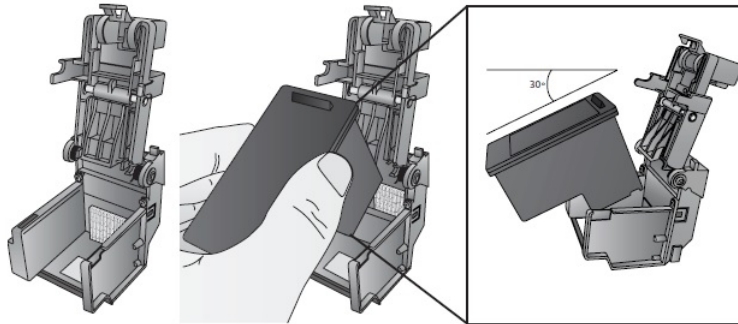If you are using circular die-cut labels or through-hole supply, use the instructions below to adjust the position of the gap sensor. The sensor can be adjusted using the slide bar on the inside of the printer. Below the slide bar is a measurement which represents the distance between the edge of the supply and the sensor. Measure the distance from the edge of the supply to the correct position on the label. Set the sensor so that the side of the slide bar lines up to this measurement. See dashed line in the figure below. The slide can be found by opening the cover and viewing from the back of the printer.

IMPORTANT! The gap sensor slide <u>must</u> be adjusted when loading irregular shaped labels.

Gap Sensor Slide
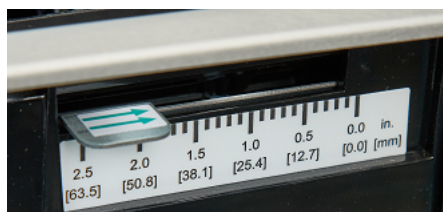
Circular Label Supply

When using circular supply, adjust the gap sensor to correspond with the very top of the label where the circles are closest together. If the sensor is too far to the right or left the printer will still sense the label but the image may be offset downward because the printer will start printing at the wrong position. If you are using supply that has multiple labels across make sure the sensor corresponds to a place on the supply that has a label and not a vertical gap.

The gap sensor can only be moved a maximum of 2 inches from the left side of the printable area. Which means that the maximum diameter circular label that can be printed is 4 inches. For supply larger than 4 inches in diameter, you must have a black mark printed on the back of the supply and change the supply sensor mode to reflective. The printer will now look for the black mark representing the beginning of the next label instead of the die-cut. For more information see "Setting the Supply Sensor Mode" on page 21. Set gap sensor to 1 1/8" for 2" circular label (1/8" liner edge gap).

Center of hole

Through-hole Supply

Center of circle

Circular Supply
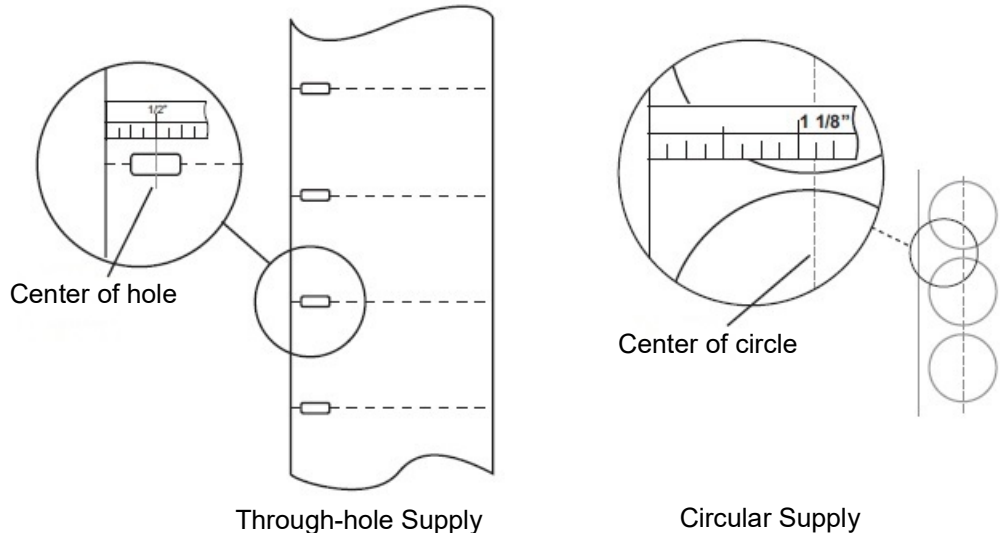
Through-hole Supply

If you are using card stock or supply that has a hole punch or a notch to identify a transition from backing to label, you can adjust the supply sensor to position it over the identifying mark.

3 Using System Tools

Brady PrintHub

The Brady PrintHub is used to interact with the printer for gathering ink levels, maintenance, alignment and several other functions.

It automatically installs with your printer driver and can be accessed through the printer driver preferences or as a program on your Windows start menu.

1. Connect the printer to the computer via USB cable and turn on the power.

    The Brady PrintHub accesses most of the information it uses from the printer itself so the printer must be turned on and communicating for the program to open.

2. Go to Start >Programs >Brady PrintHub.
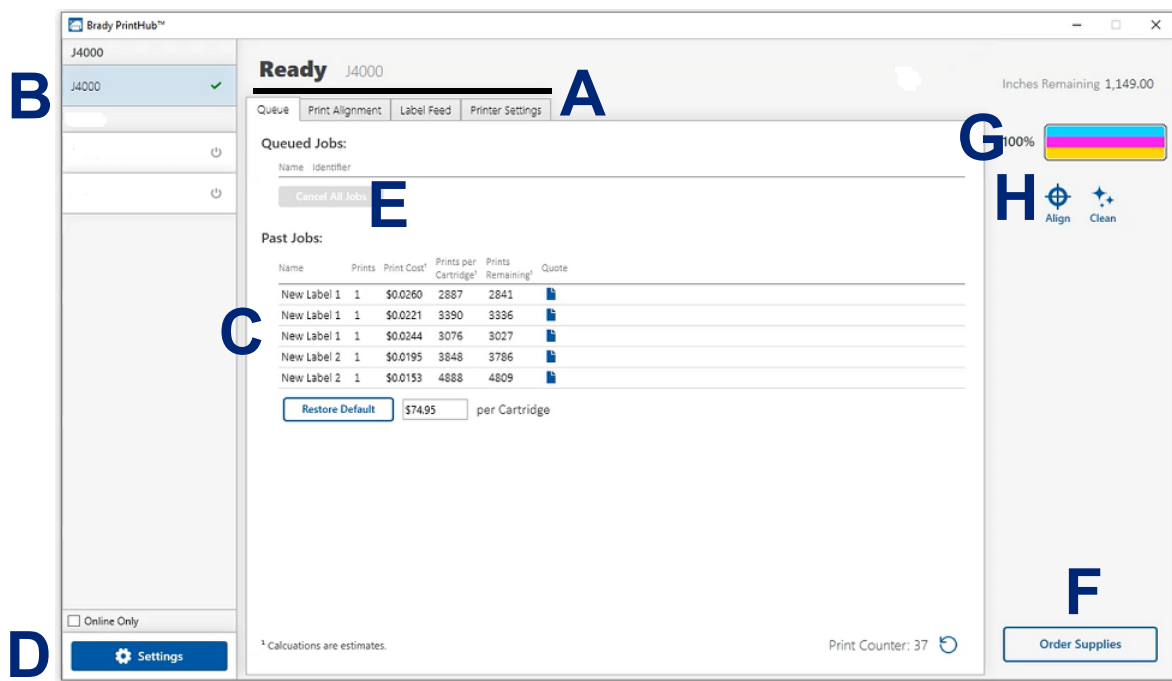
A	B	C	D	E	F	G	H
Adjust alignment, sensor mode, output mode and advanced settings.	Multiple printers will be listed here	Shows the last 5 jobs and cost information.	Application Settings	Print Queue shows the currently printing job.	Order Link	Current Ink Levels	Frequent Activities

Settings

The settings button, located in the lower left corner of the Brady PrintHub allows you to do the following:

- Change currency
- Change language
- Check for updates
- Set printing preferences
- Generate a support report
- Generate printer status

Adjusting Print Alignment

If your previous experience with printing is limited to standard size paper you may not be familiar with an essential part of label printing - Print Offsets or Alignment. Standard printers feed a sheet and start printing based on the start of the sheet. They also prohibit printing to the edge of the sheet. This is to avoid any need for adjusting offsets. The BradyJet J4000 printer, however, senses the beginning of the label with an optical sensor and is capable of printing to top, bottom, left and right edge. Because of this it is necessary to align the printer to work with specific types of label supply.

The printer comes factory calibrated to print exactly to the edge of Brady label supply. The printer decides where to start printing by detecting the start of a die-cut label or detecting a through-hole that corresponds to the start of the label. However, due to variations in the left margins and other variables it may be necessary to fine tune these settings at the beginning of each roll.

IMPORTANT! Before adjusting alignment settings, first print one label at the quality level you intend for the entire job. This will ensure the label supply is moving at the same speed and the supply sensor will sense the gap in the same way.
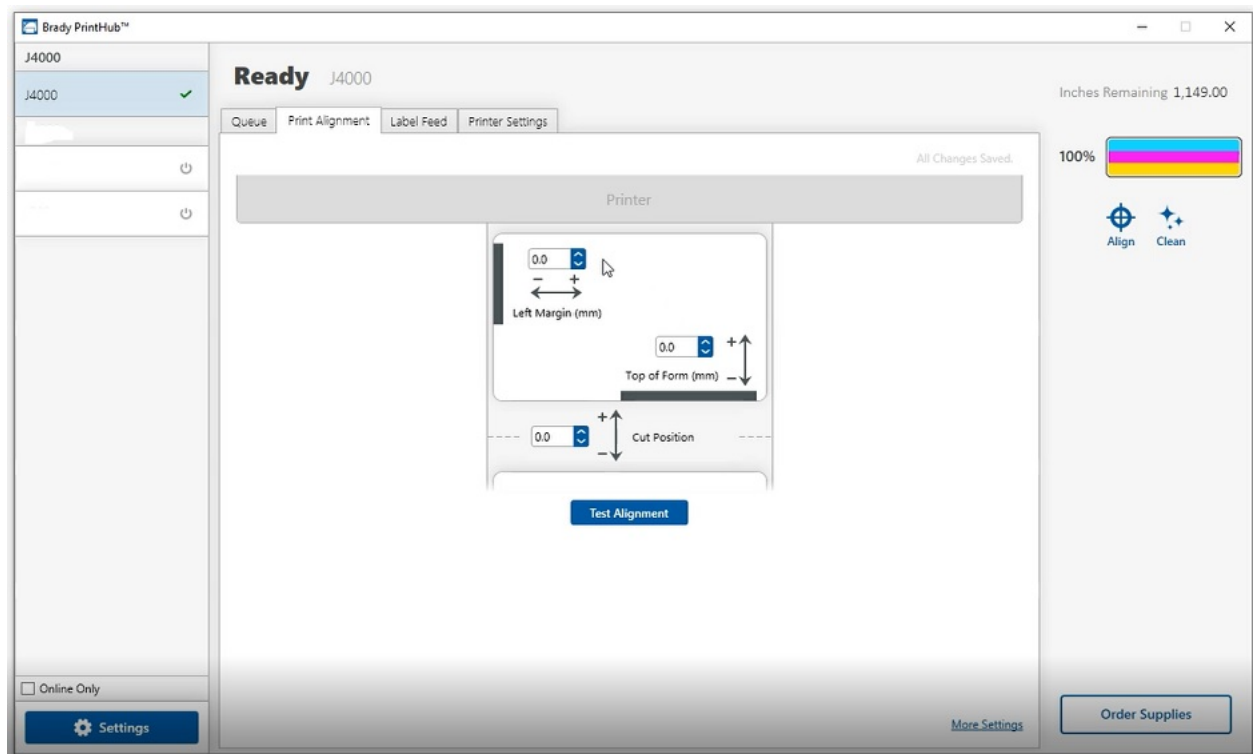
IMPORTANT! Before adjusting any values, perform a test print to see how close you are to alignment. The on screen graphic is the same as the print, which makes it easier to adjust these values.

Three items can be adjusted here:

Cut Position This value adjusts the position of the last label printed after it has been presented for tear off. This only applies if the output mode is set to "Present the label."

- Add to the current value to move the tear point closer to the printer.
- Subtract from the current value to move the tear point away from the printer.

The value is automatically saved as soon as you set it.

Left Margin Offset This value moves the printed label left or right.

- Add to the current value to move the printed label to the right.
- Subtract from the current value to move the printed label to the left.

IMPORTANT! Before adjusting this value make sure the label supply is properly loaded so that there is no gap between the edge of the liner and the fixed throat guide. Any gap at this point will greatly affect the left margin offset value needed to align the label. Also, if you adjust the value with improperly loaded label supply you will have to adjust it again if you load the label supply correctly the next time.

Top of Form (TOF) This value moves the print start position up or down on the label. If fine tuning is needed, increase this setting to move the image down on the label or decrease to move the image up on the label. The unit of measure is 0.1mm.

- Add to the current value to move the printed label down or toward the printer.
- Subtract from the current value to move the printed label up or away from the printer.

The value is automatically saved as soon as you set it.
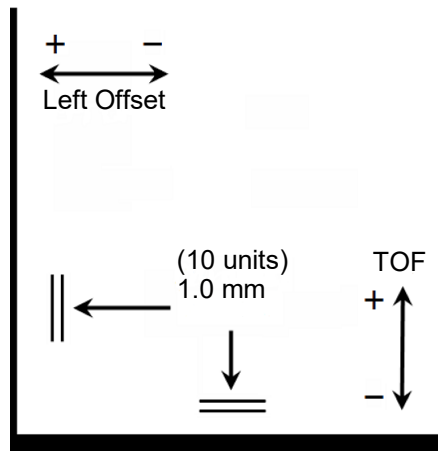
You may have to make several adjustments to one or more of these values. After each adjustment you can click the test button to print a small test pattern on the label. This will help you find the proper alignment value.

Setting the Supply Sensor Mode

The supply sensor mode refers to the method the printer will use to detect the print starting position for each label. To adjust the supply sensor mode, open the Brady PrintHub. In most cases you will not need to change this setting. By default it is set to sense standard die-cut supply. It is only necessary to change this setting if you are using clear labels or any label with a black sensing mark on the back.

IMPORTANT! Set the supply sensor mode *before* loading supply.

1. Connect the printer to the computer using the USB cable.

Note: The mode setting is stored in the printer's internal memory so you will not be able to access it unless the printer is turned on and properly communicating with the computer.

2. Open Brady PrintHub on the computer.
3. Click on the **Label Feed** tab.
4. Select the graphic that most closely corresponds to the supply you intend to install.
    This will initiate the supply sensor mode.
5. Load the supply.

Sensor Mode Types

There are three sensor modes:

Continuous. (Sensor off) For continuous supply with no die-cut, reflective mark, or holes, set the sensor type to Continuous which will turn off the supply sensor. In this mode there is no way to set the print starting position. The printer will simply start printing the first label and print each subsequent label immediately after that previous one. To produce a gap between prints simply add the desired amount of white space to the end of the label being printed.

Reflective. Use this mode for supply that has a pre-printed black line (black mark) on the back of the supply, which indicates the break between labels. Black marks are required on clear supply rolls. Black marks can also be used for irregular shaped labels, such as circles larger than 4 inches or on any supply where the starting print position cannot be sensed using the label itself.

Die-Cut (Default). When using standard die-cut labels that look similar to the graphic, use this setting regardless of the size of the label. Also use this setting for through-hole label material where a hole is punched through each label or a notch is cut in the side.

IMPORTANT! You must also set the gap sensor position (see "Adjusting the Gap Sensor" on page 15) so that the sensor is sensing the correct point on die cut or reflective supply. The gap sensor is turned off when set to continuous supply mode.

Setting the Output/Cut Modes

Use the output/cut mode to adjust how the printer outputs labels after they are printed or if the supply is cut after printing. T

1. Connect the printer to the computer using the USB cable.

Note: The mode setting is stored in the printer's internal memory so you will not be able to access it unless the printer is turned on and properly communicating with the computer.

2. Open Brady PrintHub on the computer.
3. Click on the **Label Feed** tab.
4. Check the box next to **Cutter Enabled**.

   If the cutter is disabled the label present options will be displayed. If the cutter is enabled the cut options will be displayed.

Output Options

Do not present. In this mode the supply does not move after the last label is printed. This means that part of the last label printed is still in the printer. **Only use this option if a label rewinder is attached**.

Present after no activity. This setting will feed all printed labels past the tear off point at the end of a print job if the printer does not receive another print job, within the time you set, from the last print job in the queue. Use this feature to present at the end of a multi-copy job, a multi-page job or multiple individual jobs in the queue.

Cut Options

Cut after "Feed" button press This setting will cut the supply after you press the load/feed button on the printer. This can be used after one label or an entire job.

Cut after label count Set the number of labels to print then cut. This is useful if you have front/back labels or sets of labels.

Cut after no activity This setting will cut at the end of a print job if the printer does not receive another print job within one second of the last print job in the queue. Use this feature to cut at the end of multi-copy job, multi-page job or multiple individual jobs in the queue.

Cut after every label This setting will cut after every label.

Viewing Printer Settings

View driver, firmware version, serial number and software version under this tab.
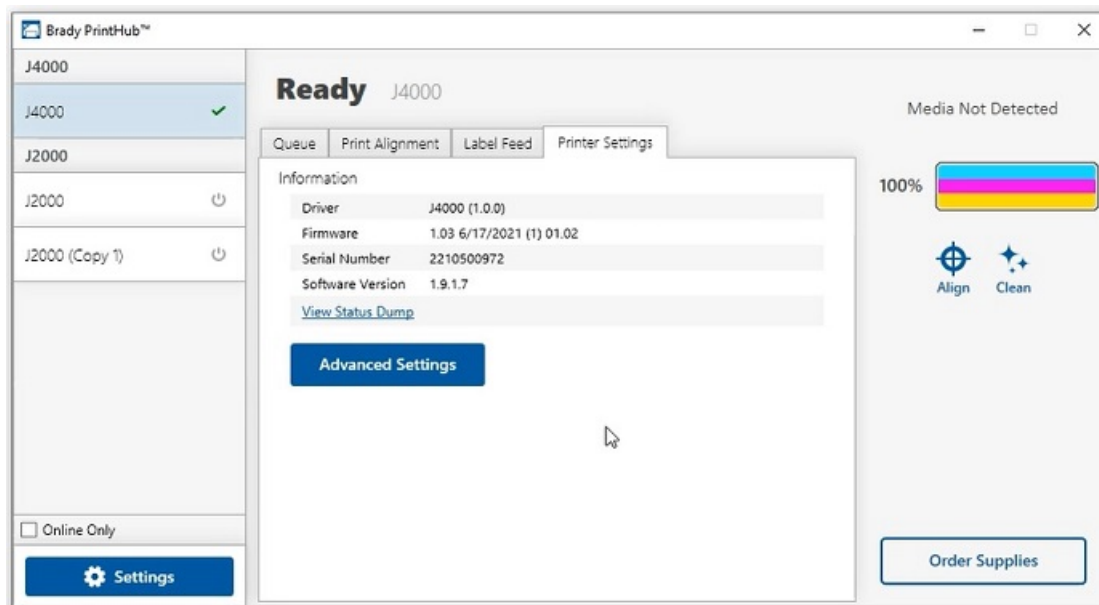
Monitoring Supplies

The Ink level and length remaining on the supply can be monitored at any time by using the Brady PrintHub. Immediately after printing starts the Brady PrintHub will display the length of remaining label supply and the ink level in the upper right corner of the application. Ink is displayed in 10% increments.

Cleaning the Ink Cartridge

It may be necessary to clean the ink cartridge nozzles if you notice reduced print quality, or if you suspect a cartridge nozzle has become slight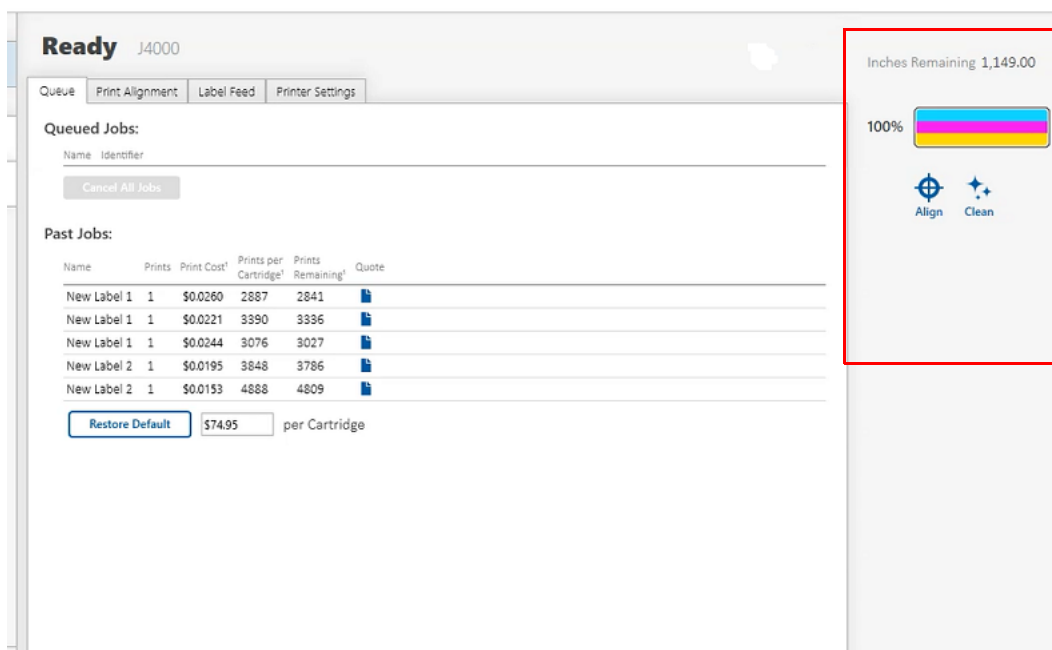ly dried out or clogged. If the cartridge has been left out of the printer more than 30 minutes the ink in the printhead nozzles may have dried.

1. Connect the printer to the computer using the USB cable.
2. Open Brady PrintHub on the computer.
3. Ensure that the ink level of the color cartridge is more than 10%. If it is lower than 10%, replace the cartridge and stop here.
4. Use the clean function in the Brady PrintHub to automatically clean the ink cartridge nozzles.
5. Check quality by printing a label.

   If print quality is still compromised, manually clean the cartridge nozzles following instructions for "Cleaning the Ink Cartridge & Maintenance Station" on page 31.

Using the Cost Estimator

The cost estimator is found under the queue section on the first tab of the Brady PrintHub. The last five job costs are stored in the list. Each job will show the approximate cost per label based on the cost per cartridge entered below the list. Enter the actual cost of the cartridge you paid. Prints remaining on the currently installed cartridge and total prints on new cartridge are both displayed.

To see a printable/saveable report click on the document icon next to the job you want to see. A report will display the information. You can print or save the report from this screen. You can also change the currency using the drop down, change the job name or adjust the cost from this screen.

IMPORTANT! The cost per label represents the average cost per label over an entire run of labels. This means that the per label cost will decrease and become more accurate as the number of labels printed increases. This is because the ink that is used for periodic cartridge maintenance is divided into a larger number of labels. It is recommended to print at least 5 labels for an accurate per label cost.

4 Printing Labels

Brady Workstation

The BradyJet J4000 Color Label Printer is compatible with Brady® Workstation desktop software. When used with Brady Workstation software, the printer will automatically recognize all enabled and compatible materials up to 8.25" (209mm) wide. For operation of the printer with other software, refer to the documentation for your application.

Printer Driver

Settings changed via the method below will apply to all new designs created in Brady Workstation or other programs after the preferences are changed. Existing labels saved in Brady Workstation will not be affected since the preferences are saved with the label. To change these preferences you will have to change printer preferences through Brady Workstation before printing by clicking the "Document Properties" button.

To find Driver Settings:

1. Click the **Start** button,
2. Choose **Printers and Scanners**.
3. Right-click on the **Printers and Scanners** Icon and select **Printing Preferences** from the drop-down menu.

The preferences screen will display.
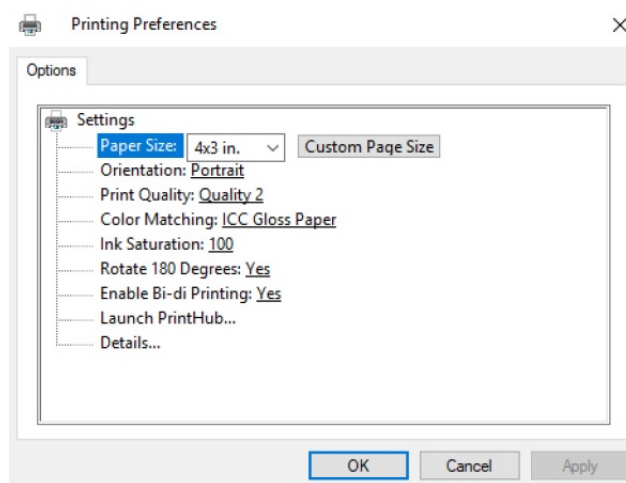
> **Note:** Most applications allow you to change these same printer driver options from their "Print" screens. Some applications such as Brady Workstation save your settings with the label, others use settings only for the current print job just sent to the printer.

Page Size

If you are using Brady Workstation, this setting is adjusted during the label setup wizard. If you are using a different program you will need to set this to the dimensions of your label. Keep in mind that the dimensions are always relative to the width and height of the actual label in the printer. Orientation of an image on the label should not change this setting. See "Supply Specifications" on page 35 for minimum and maximum label sizes.

Creating a Full Bleed Print

If you are having trouble making the image cover the entire label, first make sure the image is printing at least as big as the label size you have selected. To accomplish this using Brady Workstation, make the image a few millimeters larger than the label by dragging the image over the edge of the label on all sides. The bounding box around the image will turn red when it is over the edge of the label. Try printing again to see if it covers the entire label. If there is still an issue, adjust these settings in the printer driver preferences:

- **Page Size** Increase the page size width in the driver preferences by .03 inches (1mm). Increase the height by .03 inches (1mm). If you are using Brady Workstation, simply change the size under the File Menu - Label Setup. Increase the size of the image to fit the new larger page size. If you are using other graphics programs you will need to change the page size in the application and in the printer driver preferences.

- **Left Margin Offset** Decrease the left margin offset by half the increase of the page size width. In this case you would decrease the value by 6 (which corresponds to .025 inches / .6 mm). This will center the page size increase so there is a .025 inch (.6 mm) over bleed on both left and right sides.

- **Top of Form** Increase the TOF by 6 (which corresponds to .025 inches / .6 mm). This will cause the printer to start printing before the label and ensure a fully printed label.

Increase TOF

Actual Label Size
2 x 2

Decrease Left Margin Offset   Over Bleed Page Size
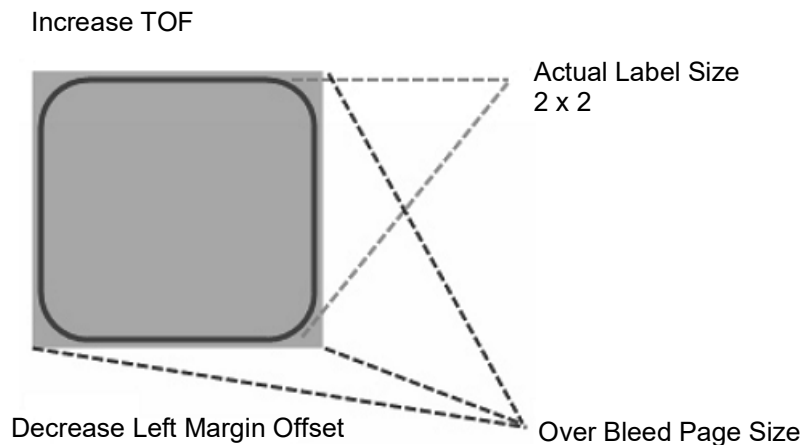
Note: It is best to over bleed as little as possible to avoid excess ink on the label backing. Also, over bleeding too much will cause the printer to skip labels, because the printer stops printing too late to sense the next label.

Orientation

There are two settings for orientation - portrait and landscape. If your text and graphics print left to right or as shown on the screen, select portrait. If you wish your printing to rotate 90 degrees from what you see on the screen, so it is printing horizontally, select landscape as your orientation. Remember, this does not change the width and height in the paper size setting. It is only a tool for viewing a label upright on screen that will be printed sideways on the printer.

Portrait   Landscape
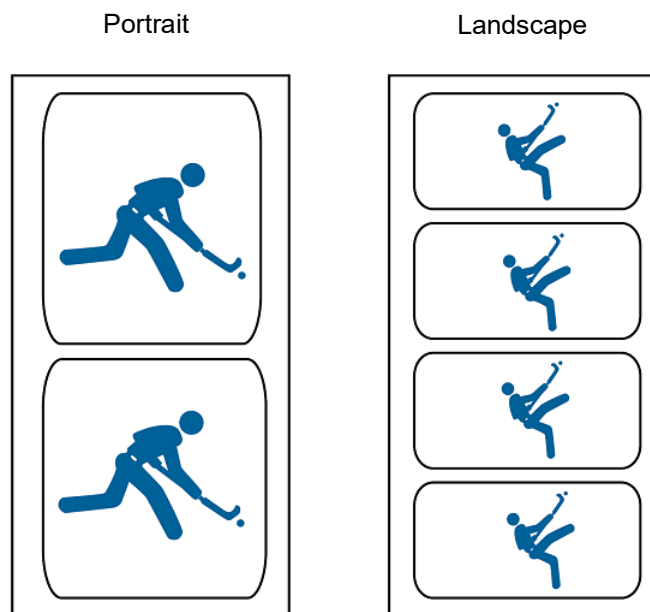
Print Resolution

There are four print quality settings in the driver to use for resolution. The lower the setting, the faster the print. Setting 1 provides the fastest print available while setting 4 provides the highest resolution and print quality at a slower speed. The default setting is setting 2 which provides the best balance between print speed, resolution and quality. You can experiment with different settings when designing a label for a particular application.

Color Matching

There are several options available depending on which cartridge is installed (Pigment or Dye). The options will update automatically depending on which cartridge is installed.

Vivid Graphics mode is best used for graphical images where accurate color reproduction is not as essential. Images printed in this mode will look more vibrant because more ink is being used to produce them. However, printing images of people may produce skin tones that have a reddish tint.

Vivid Photos mode is best used for photographic images where accurate color reproduction is very essential. Images printed in this mode will look lighter than those printed in Vivid Graphics mode. Skin tones will look more natural in this mode.

ICC Gloss Paper, ICC Gloss Polyester and **ICC Matte Bopp** are all ICC calibrated color matching options. Select the setting that corresponds to your installed Brady supply of the same type to produce ICC color matched prints.

> **Note:** ICC monitor calibration and additional setup is required for this option to work.

NONE will not use color matching.

Ink Saturation

This option controls the amount of ink used when printing an image. The default setting is 100%, which will provide the most accurate color matching. If the ink is not drying fast enough or is "bleeding," you can decrease the Ink Saturation to lessen the amount of ink that is applied to the label.

Rotate 180 Degrees

Set this setting to Yes to print with the labels right side up as they exit the printer.

Enable Bidi (Bidirectional) Printing

Set to "Yes" for fastest print speed. Requires an alignment print after every cartridge change. Set to "No" for better quality print.

Launch Brady PrintHub

On your computer go to **Start > Programs > Brady PrintHub**.

Details

Use this setting to see current firmware and driver version information and other printer settings.

Printing from Other Programs

Since this printer uses a standard Windows printer driver you can print from any application you would like. There are just a few things to remember that will make it much easier.

1. **Set the Page/Label Size in the Driver**. Brady Workstation fills in the size of the label that you are using. When printing from any other program you must do this manually. Before you print, simply set the Paper Size just as you would set print quality in the printing preferences. In the example below the label size is 4" x 4" so the custom page size is set to 400 x 400 (displayed in 0.01 inch units).
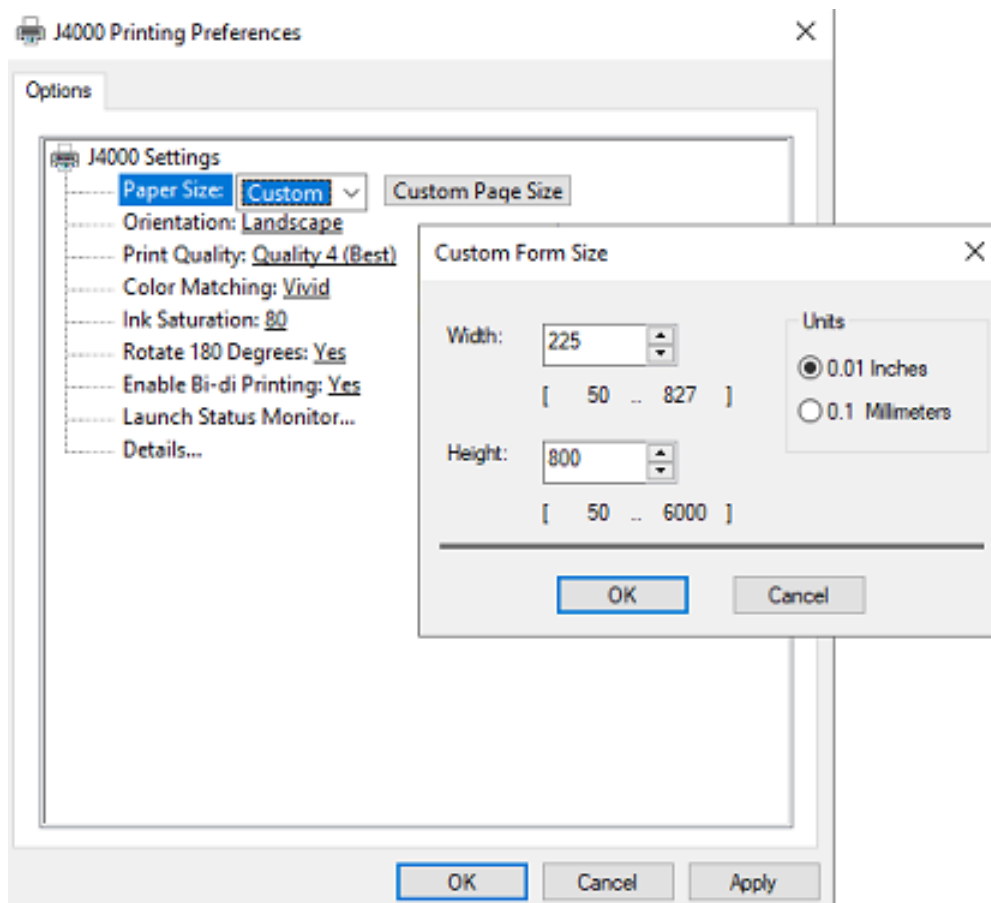
2. **Check the image or document size**. The image size or document size should correspond to the Page/Label Size set in the driver. If you have set your page size in the driver to 4" x 4" but your image is actually 5" x 3" the printer driver will automatically shrink your image to fit inside the 4" x 4" label. The result is that the actual printed label is 4" x 2.4". Avoid this by setting your page size in the driver and image size in the printing application to match the label size installed in the printer

5   Maintenance

Cleaning the Ink Cartridge & Maintenance Station

It may be necessary to clean the ink cartridge nozzles if you notice reduced print quality, or if you suspect a cartridge nozzle has become slightly dried out or clogged. If you are having print quality problems, follow the steps below:

1. Remove ink cartridge from printer.
2. Fold two paper towels four times each and soak in a glass of water for five seconds.

Note: Do <u>not</u> squeeze excess water from paper towels.

3. Place one paper towel on cartridge nozzles and gently press for 30-40 seconds.

Copper contacts
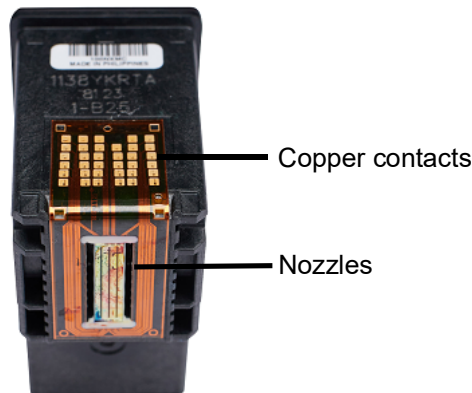
Nozzles

4. Unfold the second paper towel, place on a flat/hard surface and press the cartridge, nozzle side down, on to the top edge of the paper towel.
5. Firmly tap the top of the cartridge three times to force the ink out.
6. Drag the cartridge down the paper towel towards you, repeating until all three colors are on the paper towel.

    If all three colors are not showing up on the paper towel, repeat steps 5 and 6. If the paper towel still doesn't show all three colors replace the cartridge.

7. Clean the copper contacts with a paper towel dampened with rubbing alcohol.
8. Thoroughly dry the entire cartridge with a clean paper towel.
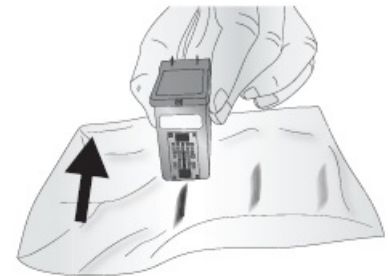
IMPORTANT! Printer damage may result if cartridge contacts are not completely dry.

9. Power off the printer.

10. Gently move the cartridge carrier to the left to access the maintenance station.

    The maintenance station is located on the right side of the print area and includes the rubber cartridge nozzle cap and the plastic roller.

11. Dampen a paper towel with rubbing alcohol and clean maintenance station.

6 Troubleshooting

Problem	Cause	Corrective Action
Unwanted white space at top or bottom of label.	Printing is vertically offset.	Refer to "Adjusting Print Alignment" on page 18.
Gap distance is off.	Non-standard label shape installed.	See "Adjusting the Gap Sensor" on page 15.
Printing starts at wrong point on label or skips a label.	Wrong page size set.	Refer to "Page Size" on page 27.
Printing over the gap on to next label.	Portrait / landscape setting is incorrect.	Refer to "Orientation" on page 28.
Printing is off on labels that are non-standard.	The supply gap sensor needs adjustment.	Refer to "Through-hole Supply" on page 16.
Unwanted white space at left or right side of label.	Printing is horizontally offset.	Adjust the left margin offset by increasing the number of extra white space is on the left side of the label or decreasing the number on the right side. Refer to "Adjusting Print Alignment" on page 18.
Unwanted white space on the right side of the label.	Page size is not large enough for the label.	Refer to "Page Size" on page 27.
Image does not cover entire label.	Image is smaller than size of label.	Enlarge image to fill size of label.
	Page size is wrong.	Increase the page size width and height each by .05 inches. Refer to "Page Size" on page 27.
	Left margin offset is wrong.	Decrease the left margin offset by a value of 6 (or .025 inches). Refer to "Adjusting Print Alignment" on page 18.
	Top of Form (TOF) setting is off.	Increase the TOF by 6. Refer to "Adjusting Print Alignment" on page 18.
Labels are skipped during printing.	Excess ink on label backing.	Stop printing. Advance and remove two or three blank labels and print again.
Labels will not exit the printer.	Labels could be jammed inside.	Clear the label jam.

Problem	Cause	Corrective Action
Print quality is less than desired.	Quality setting is incorrect.	Change the quality setting. Refer to "Print Resolution" on page 29.
	Clogged nozzles on ink cartridge.	Clean the nozzles. Refer to "Cleaning the Ink Cartridge" on page 24.
	Printhead isn't aligned.	1.Open the Brady PrintHub. 2.Click on the Align Printhead button on the Cartridge Utilities Tab. 3.Follow on-screen prompts.
	Maintenance Station needs cleaning.	Clean the maintenance stations. Refer to "Cleaning the Ink Cartridge & Maintenance Station" on page 31.
	Color Matching setting is wrong.	Change the color matching settings. Refer to "Print Resolution" on page 29.
	Incorrect label supply is installed.	Confirm that label supply is ink jet compatible.
	Image mode is incorrect.	The image mode of the source file may be set to RGB instead of CMYK. This can cause the color matching to be off. Change the image mode of the original file, re-save and reprint.
	Source image resolution is low.	Check the resolution of the source image and re-save with a DPI of at least 300.
	Bad USB cable.	Replace with a new USB cable that is six feet or shorter in length.
Indicator Lights		
Pause or Power LED is flashing.	The cause is variable.	Open PrintHub > Printer Settings and click on "View Status Dump" to view the error.

7 Supply Specifications

A wide variety of label supply can be used in the printer. Refer to the specifications and settings in the following sections before ordering custom supply.

IMPORTANT! Test all custom made label supply with the intended printer before ordering large quantities! Brady will only assume responsibility for custom label supply ordered from Brady.

Label Sensing Methods

Method 1: Label Gap Sensing

Method 2: Through-Hole Sensing

Method 3: Reflective/Black Mark Sensing
(Black Mark must be printed on back side of supply)

Label Width

Liner Width

Gap Sensor Adjustment Range

Gap Between Labels

Width of Opening

Distance from edge of media to edge of label

Label Height

Black Mark Width
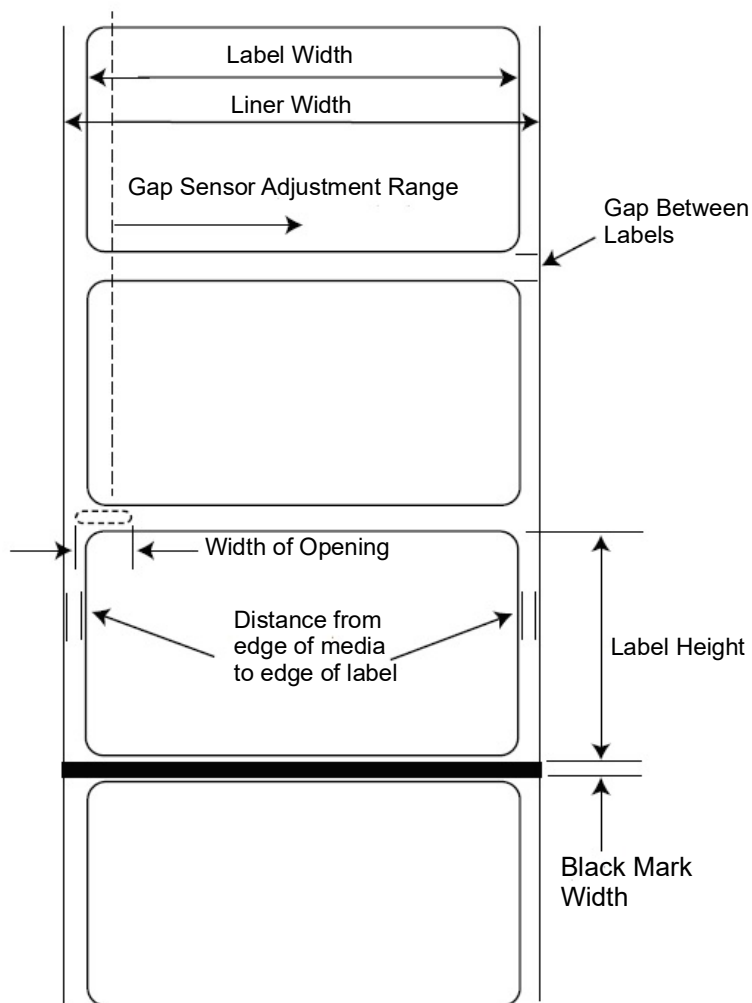
	Max	Min
Label width	8.25" (209mm)	0.5" (13mm)
Liner/media width	8.375" (212mm)	1.5" (38mm)
Label height/length	24" (609mm)	0.5" (13mm)
Gap between labels	10" (253mm)	0.10" (2.5mm)
Width of through-hole opening	0.5" (12.65mm)	0.25" (6.325mm)
Gap Sensor Adjustment Range (from left edge)	1.9" (48mm)	0.20" (5.06mm)
Reflective/Black N/A 0.1" (2.54mm) Mark Width*	Not Applicable	0.1" (2.54mm)
Max Outer Diameter (OD)	6.0"(152.4mm)	Not Applicable
Inner Core Diameter (ID)	3.0" (76.2mm)	3.0" (76.2mm)
Total Thickness (Liner + Label)**	.0010" (10 mil)	Not Applicable
Distance from edge of media to edge of label	Printer driver assumes 2 mm gap. However, this is adjustable via the left margin offset.	

* The reflective/black mark should be opaque to infrared light. The mark should be between the labels. The end of the mark should correspond with the beginning of the label.

** This is the recommended maximum. There are two factors that determine whether the printer will accept any particular stock thickness.

1. The ability for the printer to pull the paper through the print area.
2. The ability for the sensor to read through the backing if the sensor is set to die-cut.

If you are printing in continuous or reflective label sensing mode number 2 does not apply. The fact that the printer must read through the backing in die-cut mode will limit the thickness much more than the printer's ability to pull the paper through the print area. However, if you adjust the opacity level of the liner enough to allow the label to be seen by the stock sensor, the thickness will only be limited by the printer's ability to pull it through the printer area. For these reasons the weight or thickness of the liner is a variable that can not easily be defined. It is recommended to use a 40# liner with all label supply.
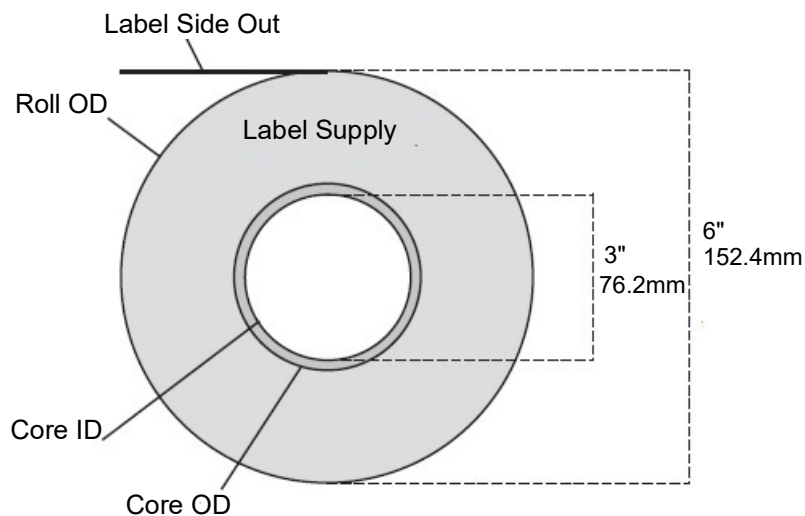
IMPORTANT! Test all supply with the printer before ordering large quantities!

Roll Specifications

Note: If you are using an applicator to apply your labels, be sure to order supply with the correct orientation for your applicator. For example most applicators will apply the side of the label first, so you will want to print the labels sideways.

Appendix: Regulatory Compliance

Agency Compliance and Approvals

United States

FCC Notice

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and, (2) this device must accept any interference received, including interference that may cause undesired operation.

Estados Unidos

Aviso de la FCC

Nota: Este equipo se puso a prueba y se confirmó que cumple con los límites para un dispositivo digital de Clase A, conforme a la Parte 15 de las Regulaciones de la Comisión Federal de Comunicaciones (Federal Communications Commission, FCC). Estos límites se han diseñado para proporcionar protección razonable contra interferencias perjudiciales cuando el equipo se utilice en un entorno comercial. Este equipo genera, utiliza y puede emitir energía de radiofrecuencia y, si no se instala y se utiliza según el manual de instrucciones, puede ocasionar interferencias perjudiciales en las radiocomunicaciones.

El uso de este equipo en un área residencial puede causar interferencias perjudiciales, en cuyo caso el usuario tendrá que corregir dichas interferencias por su cuenta.

Los cambios o las modificaciones que no hayan sido aprobados expresamente por la parte responsable del cumplimiento pueden invalidar la autorización que se le otorga al usuario para utilizar el equipo.

Este dispositivo cumple con la Parte 15 de las Regulaciones de la FCC. El uso está sujeto a las siguientes dos condiciones: (1) es posible que este dispositivo no provoque interferencias perjudiciales y (2) este dispositivo debe aceptar cualquier interferencia recibida, incluso aquella que pueda generar un uso no deseado.

Canada

Innovation, Science and Economic Development (ISED)

Canada ICES-003:

CAN ICES-3 (A)/NMB-3(A)

Mexico

IFT notice: La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada.

Europe

> ⚠️ **WARNING!** This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

	Waste Electrical and Electronic Equipment Directive In accordance with the European WEEE Directive, this device needs to be recycled in accordance with local regulations.

RoHS Directive 2011/65/EU, 2015/863/EU

This product is CE marked and complies with the European Union's Directive 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

EU Directive 2015/863 of 31 March 2015 amends Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances.

Turkey

Turkish Ministry of Environment and Forestry

(Directive on the Restriction of the use of certain hazardous substances in electrical and electronic equipment).

Türkiye Cumhuriyeti: EEE Yönetmeliğine Uygundur

Wireless Regulatory Information

Regulatory markings, subject to country certification, are applied to host printer signifying wireless approvals have been obtained. For a complete list of approved countries, go to www.BradyID.com/J4000compliance

⚠️ **WARNING!** Operation of the device without regulatory approval is illegal.

Radio protocol	ISO15693 compliant RFID reader/writer
RF Operating Frequency	13.56 MHz
RF Output Power	< +20dBm EIRP (100mW) < +23dBm (200mW)
Antenna Type	PCB loop antenna, 2.5 µH @ 13.56 MHz

United States

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at own expense.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference and, (2) this device must accept any interference received, including interference that may cause undesired operation.

Información reglamentaria sobre conexiones inalámbricas

Las marcas reglamentarias, sujetas a la certificación de cada país, se aplican a la impresora host, lo que significa que se obtuvieron las aprobaciones de radio

> ⚠️ **¡ADVERTENCIA!** El uso del dispositivo sin la aprobación de los organismos reguladores es ilegal.

Protocolo de radio	Lector / escritora RFID compatible con
Frecuencia de operación de RF	13.56 MHz
Potencia de salida de RF	< +20dBm EIRP (100mW) < +23dBm (200mW)
Tipo de antena	Antena de cuadro de PCB, 2.5 ?H @ 13.56 MHz

Estados Unidos

Nota: Este equipo se puso a prueba y se confirmó que cumple con los límites para un dispositivo digital de Clase A, conforme a la Parte 15 de las Regulaciones de la FCC. Estos límites se han diseñado para proporcionar protección razonable contra interferencias perjudiciales cuando el equipo se utilice en un entorno comercial. Este equipo genera, utiliza y puede emitir energía de radiofrecuencia y, si no se instala y se utiliza según el manual de instrucciones, puede ocasionar interferencias perjudiciales en las radiocomunicaciones.

El uso de este equipo en un área residencial puede causar interferencias perjudiciales, en cuyo caso el usuario tendrá que corregir dichas interferencias por su cuenta.

Los cambios o las modificaciones que no hayan sido aprobados expresamente por la parte responsable del cumplimiento pueden invalidar la autorización que se le otorga al usuario para utilizar el equipo.

Este dispositivo cumple con la Parte 15 de las Regulaciones de la FCC. El uso está sujeto a las siguientes dos condiciones: (1) es posible que este dispositivo no provoque interferencias perjudiciales y (2) este dispositivo debe aceptar cualquier interferencia recibida, incluso aquella que pueda generar un uso no deseado.

Declaraciones sobre la colocalización: A fin de cumplir con el requisito de cumplimiento de la FCC relativo a la exposición a RF, la antena que se utilice para este transmisor no debe ubicarse ni utilizarse junto con ningún otro transmisor o antena, a excepción de aquellos que ya se incluyen en el módulo de radio.

Pautas sobre la exposición a RF: La potencia de salida irradiada de este dispositivo está muy por debajo de los límites de exposición a radiofrecuencia. No obstante, para evitar que se superen los límites de exposición a radiofrecuencia en un entorno no controlado, se debe mantener una distancia mínima de 20 cm entre la antena (interna) en placa de circuito impreso del módulo de radio de wifi y la cabeza, el cuello o el cuerpo durante el uso normal.

Canada

Innovation, Science and Economic Development (ISED)

CAN ICES-3 (A)/NMB-3(A)

This device complies with Industry Canada's license-exempt RSS standards. Operation is subject to the following two conditions:

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Mexico

IFT notice:

"La operación de este equipo está sujeta a las siguientes dos condiciones: (1) es posible que este equipo o dispositivo no cause interferencia perjudicial y (2) este equipo o dispositivo debe aceptar cualquier interferencia, incluyendo la que pueda causar su operación no deseada."

European Union

This is a Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

Radio Equipment Directive (RED) 2014/53/EC

    a. Frequency band(s) in which the radio equipment operates; 13.56 MHz

    b. Maximum radio-frequency power transmitted in the frequency band(s) in which the radio   equipment operate; < +23dBm EIRP (200mW)

International

The RFID module used in Brady host printers comply with internationally recognized standards covering human exposure to electromagnetic fields, i.e. EN 62311 "Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz)".