

# Bradyprinter MVPplus

User and Quick Reference Guide





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# Bradyprinter THT MVPplus Quick Reference Guide

This quick start guide provides basic information to install and operate your printer. For more detailed information, refer to the users guide (part number 13163L-12).

Label preparation software is available for your printer. Contact your distributor or Brady Corporation at <http://www.bradyid.com> or <http://www.bradyeurope.com> for further information.

The maintenance manual (part number 13358L) contains the information you will need to properly maintain your printer.

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## Printer Power

The power supply in the printer automatically detects the applied line voltage and works in the 90 to 265 VAC range.

The AC power cord has a three-prong female connector on one end that plugs into the mating connector at the rear of the printer. (If a power cable was not included with your printer, refer to the users guide.)

Ensure that the AC power switch is off (O) before connecting the AC power cord to a nearby electrical outlet.

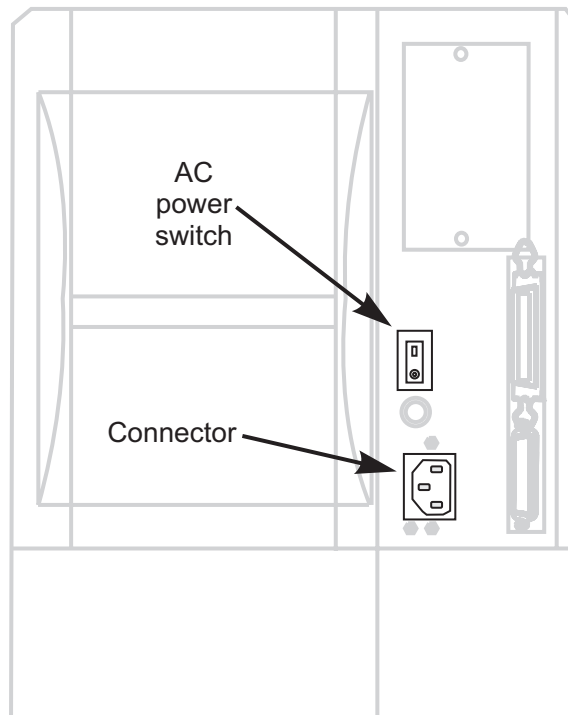


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**Caution** • Turn OFF (O) the printer and disconnect it from the power source before performing any maintenance.

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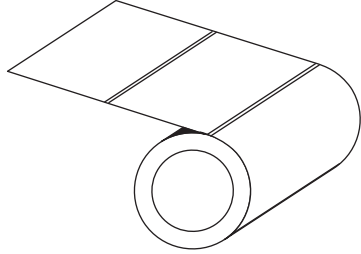
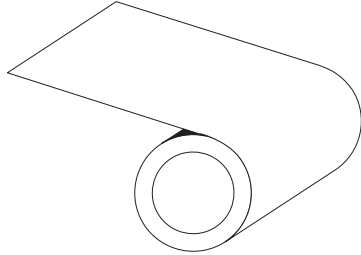
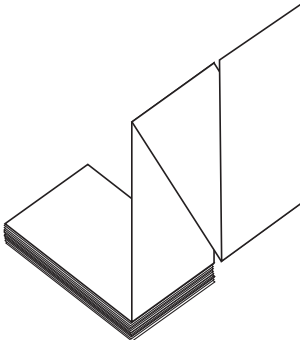
Figure 1 • Printer Power



## Media

The printer can use various types of media (Table 1).

**Table 1 • Types of Media**

Media Type	How It Looks	Description
<b>Non-Continuous Roll Media</b>		<p>The media is wound on a core. Individual labels are separated by a gap, notch, hole, or black mark, which enables you to see where one label ends and the next one begins. When using media that has holes or notches, position the media sensor directly over a hole or notch.</p>
<b>Continuous Roll Media</b>		<p>The media is wound on a core and is without gaps, holes, notches, or black marks. This allows the image to be printed anywhere on the label.</p>
<b>Fanfold Media</b>		<p>The media is folded in a zigzag pattern.</p>

## Ribbon

Ribbon is a thin film that is coated on one side with wax, wax resin, or resin, and which is transferred to the media during the thermal transfer process.

### When To Use Ribbon

Thermal transfer media requires ribbon for printing while direct thermal media does not. To determine if ribbon must be used with a particular media, perform a media scratch test.

#### To perform a media scratch test, complete these steps:

1. Scratch the print surface of the media with your fingernail.
2. Did a black mark appear on the media?

If a black mark...	Then the media is...
Does not appear on the media	<b>Thermal transfer.</b> A ribbon is required.
Appears on the media	<b>Direct thermal.</b> No ribbon is required.

### Coated Side of Ribbon

Ribbon can be wound with the coated side on the inside or outside (Figure 2). This printer can only use ribbon that is coated on the **outside**.

Figure 2 • Ribbon Coated on Outside or Inside



#### To determine which side of a ribbon is coated, complete these steps:

1. Peel a label from its liner.
2. Press a corner of the sticky side of the label to the outer surface of the roll of ribbon.
3. Peel the label off of the ribbon.
4. Observe the results. Did flakes or particles of ink from the ribbon adhere to the label?

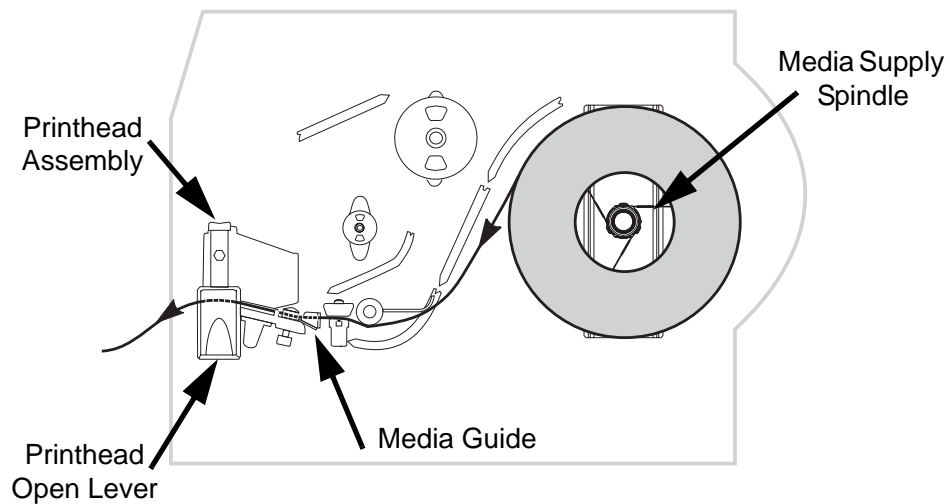
If ink from the ribbon...	Then...
Adhered to the label	The ribbon is coated on the <b>outer</b> surface.
Did not adhere to the label	The ribbon is coated on the <b>inner</b> surface. To verify this, repeat the test on the inner surface of the roll of ribbon.

## Load the Media

This procedure is for loading media in Tear-Off Mode. For loading either fanfold media or roll media with a printer option, refer to the User Guide.

1. See [Figure 3](#). Press the printhead open lever.  
The printhead assembly springs up. Continue to pivot the printhead until it locks into place.
2. Slide out the media guide as far from the printer frame as possible.
3. Place the roll of media on the media supply spindle.
4. Load the media as shown.  
For fanfold or roll media, refer to the User Guide.
5. Slide in the media guide so that it just touches, but does not restrict, the edge of the roll.
6. Close the printhead assembly.

**Figure 3 • Load the Media**

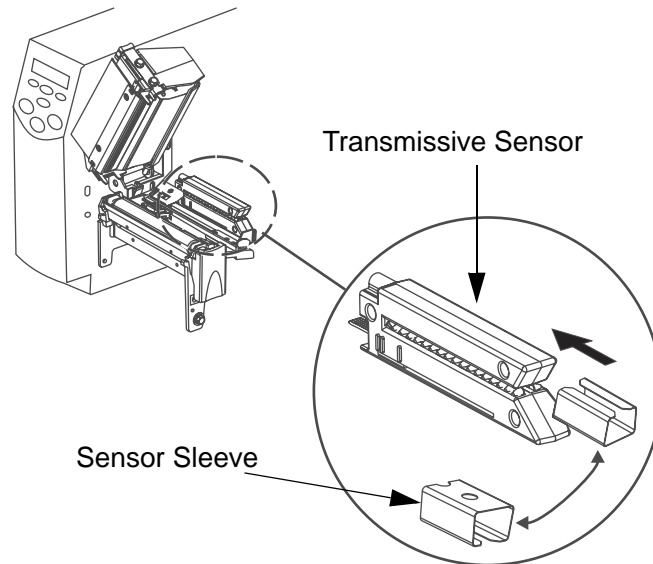


## Position the Transmissive Sensor

This printer uses two types of media sensors: transmissive and reflective. By default, the printer uses the transmissive sensor, which you can adjust for optimal print performance. The reflective sensor is a secondary media sensing system that is activated only if the transmissive sensor cannot be used to calibrate the media.

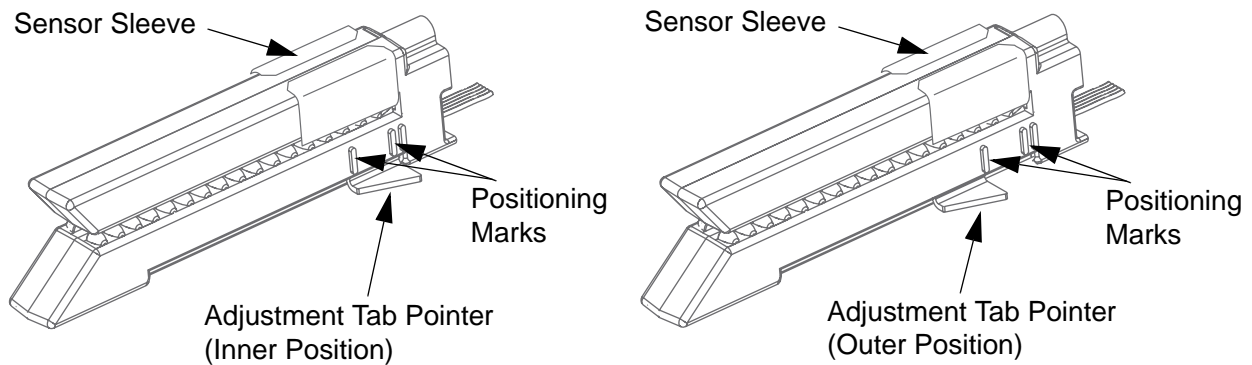
The transmissive sensor is equipped with a slide-on sensor sleeve (Figure 4). This sleeve has a notch on one end and a hole in the middle, which help the printer calibrate media that has an edge notch or an intra-label gap.

Figure 4 • Transmissive Sensor and Sensor Sleeve



The lower section of the transmissive sensor has two white vertical positioning marks and a movable adjustment tab pointer (Figure 5). The positioning marks correspond to the notch and hole in the sensor sleeve.

Figure 5 • Transmissive Sensor with Adjustment Tab Pointer





To adjust the transmissive sensor:

1. Press the printhead open lever.  
The printhead assembly springs up. Continue to pivot the printhead until it locks into place.
2. See [Figure 4](#). Locate the transmissive sensor.
3. Push the sensor sleeve all the way in on the transmissive sensor.
4. See [Figure 5](#). Locate the white adjustment tab pointer on the back of the transmissive sensor.
5. What type of media are you using?

If you are using...	Then...
Non-continuous media with notched edges	Move the adjustment tab pointer to the inner positioning mark. The point of the tab should align with the mark.
Non-continuous media without notched edges	Move the adjustment tab to the outer positioning mark. The point of the tab should align with the mark.
Continuous media	Move the adjustment tab to the outer positioning mark. The point of the tab should align with the mark.



**Note** • Certain types of media may require you to position the adjustment tab to locations outside of the sensor sleeve.

6. Ensure the media and ribbon are properly positioned.
7. Close the printhead assembly.

## Position the Reflective Sensor

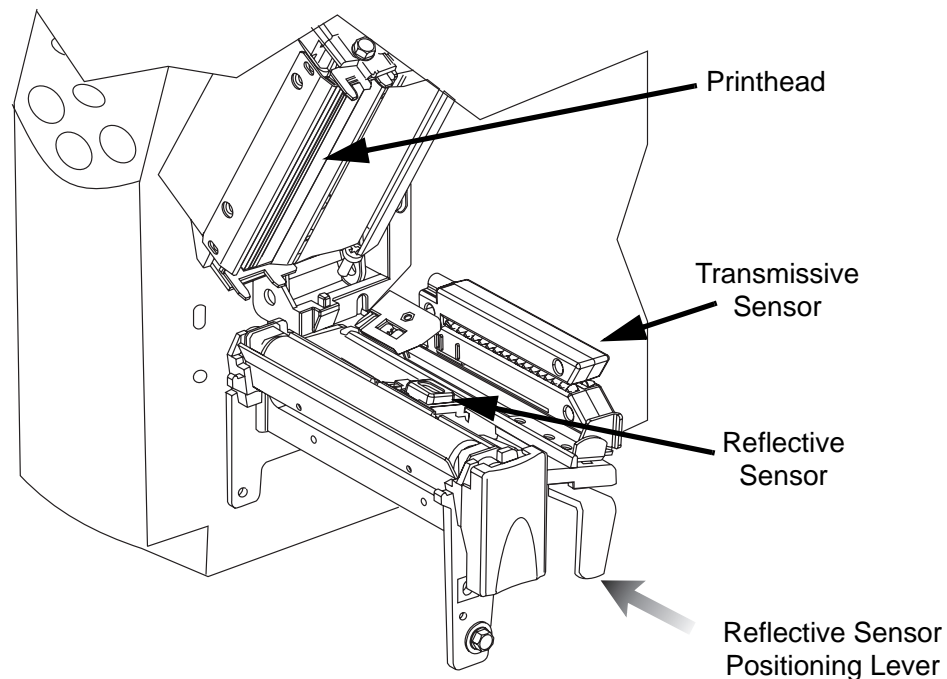


**Note** • This sensor is typically covered by a factory-installed plate. If you need to enable this sensor, you must remove the plate.

Refer to [Figure 6](#).

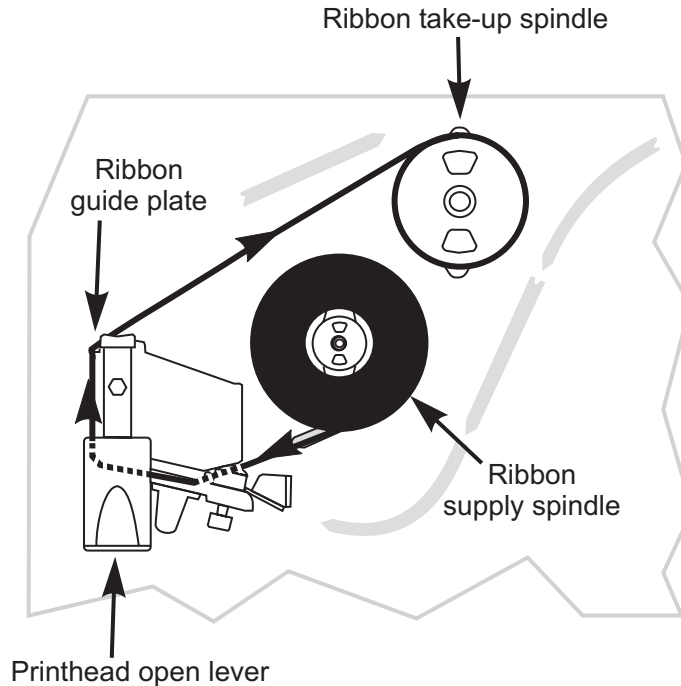
1. Open the printhead assembly and turn on the AC power.
2. Locate the reflective sensor positioning lever.
3. **For non-continuous media:** Move the lever across the width of the media to align the reflective sensor with the start-of-label indicator (notch, hole, black mark, or gap). The glow of the red LED through the media helps to position the sensor.
4. **For continuous media:** Position the reflective sensor anywhere under the media so that a “MEDIA OUT” condition can be sensed.
5. Ensure that the media and ribbon are properly positioned.
6. Close the printhead assembly.

**Figure 6 • Position the Reflective Sensor**



## Load the Ribbon

Figure 7 • Load the Ribbon



**Important** • To protect the printhead from wear, always use ribbon that is wider than the media.



**Note** • For direct thermal printing, do not load ribbon in the printer.

Refer to [Figure 7](#).

1. Press the printhead open lever. The printhead assembly springs up. Continue to pivot the printhead until it “locks” into place.
2. Align the segments of the ribbon supply spindle.
3. Place the ribbon roll on the ribbon supply spindle.
4. Thread the ribbon approximately 18 inches (45 cm) past the printhead assembly.
5. Close the printhead assembly, keeping the ribbon aligned with the guide mark near the left edge of the ribbon guide plate.
6. Wind the ribbon clockwise onto the ribbon take-up spindle for several turns.

## Remove the Ribbon

While holding the ribbon take-up spindle, turn the release knob counterclockwise on the end of the ribbon take-up spindle. Then, slide the ribbon off the spindle.

## Front Panel

Refer to [Figure 8](#).

Figure 8 • Front Panel

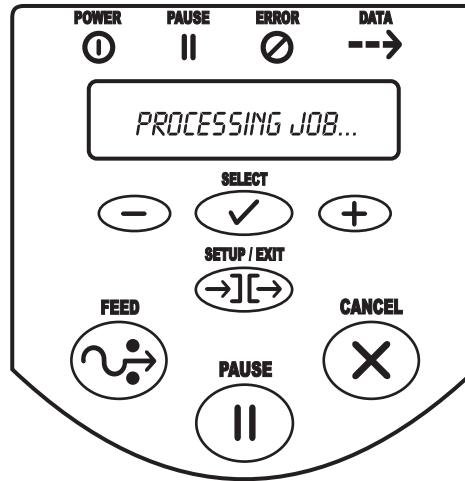


Table 2 • Front Panel Buttons

Front Panel Buttons	Description
<b>FEED</b>	<ul style="list-style-type: none"> <li>Press once to feed one blank label.</li> </ul>
<b>PAUSE</b>	<ul style="list-style-type: none"> <li>Press once to stop the printing process.</li> <li>Press again to restart the printing process.</li> </ul>
<b>CANCEL</b>	<p>When in Pause Mode, this cancels print jobs.</p> <ul style="list-style-type: none"> <li>Print job(s) in queue: press once for each print job to be deleted.</li> <li>Press and hold for more than three seconds to discard all of the label formats received and return to idle.</li> <li>If no label formats are stored, CANCEL will be ignored.</li> </ul>
<b>SETUP/EXIT</b>	<ul style="list-style-type: none"> <li>Press to enter Configuration Mode.</li> <li>Upon completion of the configuration sequence, press to save changes and exit Configuration Mode.</li> </ul>
<b>SELECT</b>	<p>SELECT changes the function of INCREMENT (+) and DECREMENT (-).</p> <ul style="list-style-type: none"> <li>Press SELECT once to use INCREMENT (+) and DECREMENT (-) to change the value of the selection.</li> <li>Press SELECT again to use INCREMENT (+) and DECREMENT (-) to scroll through the menu items.</li> </ul>

**Table 2 • Front Panel Buttons (Continued)**

Front Panel Buttons	Description
<b>PLUS (+)</b>	<p>Press (+) to:</p> <ul style="list-style-type: none"> <li>• scroll to the next selection</li> <li>• increase the value</li> <li>• answer “yes”</li> <li>• print a label (when applicable)</li> </ul>
<b>MINUS (-)</b>	<p>Press (-) to:</p> <ul style="list-style-type: none"> <li>• return to the previous selection</li> <li>• decrease the value</li> <li>• select the digit you wish to change</li> <li>• answer “no”</li> </ul>

**Table 3 • Front Panel LEDs**

Front Panel LEDs	Description
<b>POWER</b>	POWER is on when the printer is turned on.
<b>PAUSE</b>	<p>When on, the printer has stopped all printing operations. If the printer is printing when a pause is requested, the LED turns on at the end of the current label.</p> <p>In Peel-Off Mode, the PAUSE LED blinks when the label is available for removal.</p> <p><b>Note</b> • No printing occurs when the printer is in Peel-Off Mode and the peel-off option is not installed.</p>
<b>ERROR</b>	<p>The ERROR LED is normally off. When an error occurs that causes an interruption in the printing process, the LED acts as follows:</p> <ul style="list-style-type: none"> <li>• SLOW BLINK — “RIBBON IN” warning, “UNDER TEMP” warning, or “OVER TEMP” error</li> <li>• FAST BLINK — “PRINTHEAD OPEN” error</li> <li>• LED ON — “MEDIA OUT,” “RIBBON OUT,” or “CUTTER” errors</li> </ul> <p>The error is displayed on the liquid crystal display (LCD).</p>
<b>DATA</b>	<p>The DATA LED is normally off. When data is received, the LED acts as follows:</p> <ul style="list-style-type: none"> <li>• SLOW BLINK — The printer is unable to accept more data from the host.</li> <li>• FAST BLINK — The printer is receiving data.</li> <li>• LED ON — No data is being received. Data processing or printing is still occurring.</li> </ul> <p>The DATA LED blinks once when CANCEL is pressed and a format is successfully canceled.</p>

## Configure the Printer

The configuration procedure in the next table contains the information you need to get your printer up and running, **but it is not comprehensive**. Refer to the user guide for more information.

To enter Configuration Mode, press **SETUP/EXIT** at the **PRINTER READY** display.



**Note** • You will need to press (+) more than once to advance to some of the displays.

Remember:

- Press **SELECT** once to use (+) and (–) to change the value of the selection.
- Press (+) to scroll to the next selection, increase the value, answer “yes,” or print a label (when applicable).
- Press (–) to return to the previous selection, decrease the value, select the digit you wish to change, or answer “no.”
- Press **SELECT** again to use (+) and (–) to scroll to the desired menu item.

**Table 4 • Configure the Printer**

<b>Menu Display</b>	<b>Description</b>
<b>DARKNESS</b>	0 to 30 (default setting is 10)
<b>PRINT MODE</b>	Tear-Off, Peel-Off, Cutter, Rewind (default setting is Tear-Off)
<b>MEDIA TYPE</b>	Non-continuous, continuous (default setting is non-continuous)
<b>SENSOR TYPE</b>	Web, mark (default setting is web)
<b>SENSOR SELECT</b>	Auto Select, Reflective, Transmissive (default is Transmissive)
<b>PRINT METHOD</b>	Thermal transfer, direct thermal (default setting is thermal transfer)
<b>SAVE CHANGES</b>	Permanent, temporary, cancel, load defaults, load last saved (default setting is permanent)
<b>PRINTER READY</b>	You have exited Configuration Mode and are ready to print a test label.

## Print a Test Label

To print a test label:

1. Turn off the printer.
2. Press and hold **CANCEL** while turning on the printer.
3. Release **CANCEL** after the first front panel LED turns off.

A configuration label prints showing the printer's stored parameters (Figure 9).

Figure 9 • Configuration Label

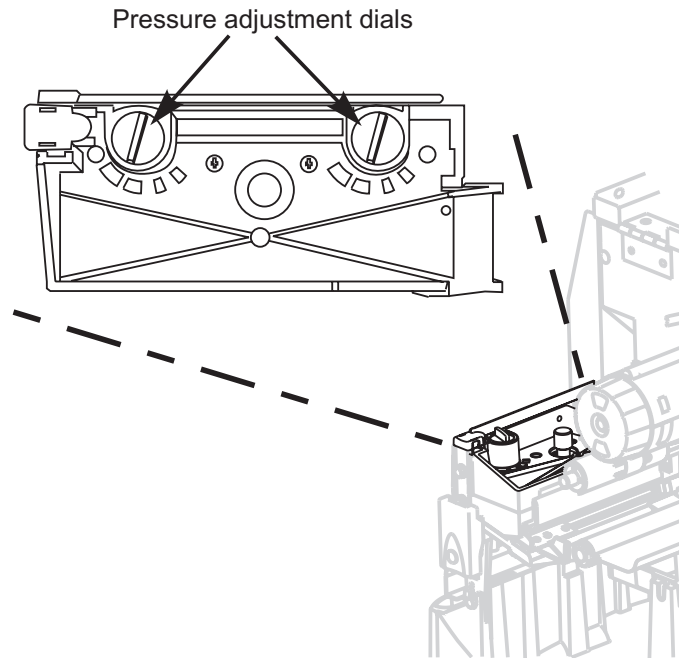
PRINTER CONFIGURATION	
Brady Corporation	
Bradyprinter MUP-Series	
+10.....	DARKNESS
+000.....	TEAR OFF
TEAR OFF.....	PRINT MODE
NON-CONTINUOUS.....	MEDIA TYPE
WEB.....	SENSOR TYPE
AUTO SELECT.....	SENSOR SELECT
THERMAL-TRANS.....	PRINT METHOD
104 0/8 MM.....	PRINT WIDTH
1233.....	LABEL LENGTH
PARALLEL.....	PARALLEL COMM.
RS232.....	SERIAL COMM.
19200.....	BAUD
8 BITS.....	DATA BITS
NONE.....	PARITY
DSR/DTR.....	HOST HANDSHAKE
NONE.....	PROTOCOL
000.....	NETWORK ID
NORMAL MODE.....	COMMUNICATIONS
<~> 7EH.....	CONTROL PREFIX
<^> 5EH.....	FORMAT PREFIX
<, > 2CH.....	DELIMITER CHAR
ZPL II.....	ZPL MODE
CALIBRATION.....	MEDIA POWER UP
CALIBRATION.....	HEAD CLOSE
DEFAULT.....	BACKFEED
+000.....	LABEL TOP
-0030.....	LEFT POSITION
023.....	WEB S.
066.....	MEDIA S.
073.....	RIBBON S.
167.....	MEDIA LED
000.....	RIBBON LED
+10.....	LCD ADJUST
DPSWFXM.....	MODES ENABLED
.....	MODES DISABLED
832 8/MM FULL.....	RESOLUTION
VXX.XX.X <-.....	FIRMWARE
VX.X.X.X.....	HARDWARE ID
CUSTOMIZED.....	CONFIGURATION
3072.....	R: RAM
8192.....	B: MEMORY CARD
2048.....	E: ONBOARD FLASH
NONE.....	FORMAT CONVERT
NONE.....	OPTION
NONE.....	ZEBRA NET II

FIRMWARE IN THIS PRINTER IS COPYRIGHTED

## Adjust Printhead Pressure

Refer to [Figure 10](#). This adjustment may be necessary if printing is too light on one side or if thick media is used. Adjust printhead pressure to ensure maximum print quality. The amount of pressure required is determined by the type and thickness of the media as well as the media width.

**Figure 10 • Printhead Pressure Adjustment Dials**



The pressure adjustment dials for the MVPplus each have four possible settings designated by blocks of increasing size embossed on the print mechanism. The smallest block (fully counterclockwise) is considered position 1 and the largest block (fully clockwise) is considered position 4. Refer to [Table 5](#) to select the initial dial settings for your media.

Some media types require higher pressure to print well. For these media, increase both dials one position. If the media tends to shift to the left while printing, increase the right dial setting one position or decrease the left dial setting one position. If the media tends to shift to the right while printing, increase the left dial setting one position or decrease the right dial setting one position.

**Table 5 • Printhead Pressure**

Media Width	Left Dial	Right Dial
1 in. (25.4 mm)	3	1
2 in. (51 mm)	4	1
3 in. (76 mm)	3	2
3.5 in. and up (89 mm and up)	3	3



## Maintenance

### Clean the Printer



**Note** • Use only the cleaning agents indicated. Brady Corporation will not be responsible for damage caused by any other cleaning materials used on the printer.

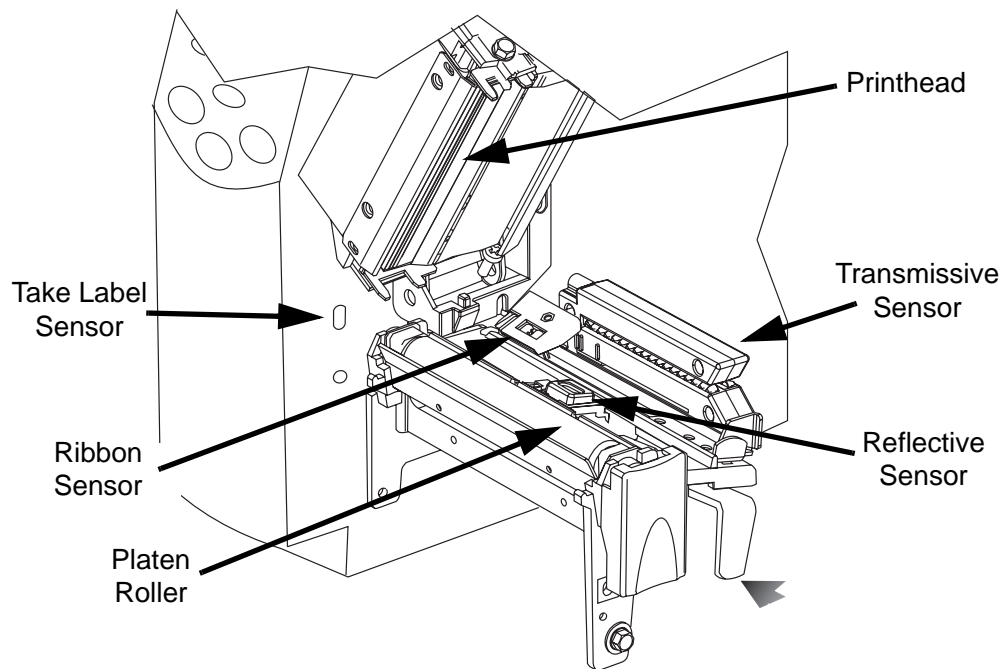
The following table provides a recommended cleaning schedule. Use a solvent of 90% isopropyl alcohol.

**Table 6 • Maintenance**

Printer Equipment		Cleaning Method	Frequency
Printhead		Solvent*	In Direct Thermal Mode, after every roll of media or every 500 feet or 150 m of fanfold media
Platen roller		Solvent*	
Media sensors		Air blow	
Media path		Solvent*	In Thermal Transfer Mode, after every roll of ribbon (1500 feet or 450 m)
Ribbon Sensor		Air blow	
Ribbon path		Solvent*	
Cutter assembly	If cutting continuous, pressure-sensitive media	Citrus-based adhesive remover	After every roll of media (or more often, depending on your application and media)
	If cutting tag stock or label liner	Solvent and air blow	After every two or three rolls of media
Tear-off/peel-off bar		Solvent*	Once a month
Peel blade		Solvent*	After every roll of media (or more often, depending on your application and media)
Label-available sensor		Air blow	Once every six months

\* Brady recommends using a solvent of 90% isopropyl alcohol or Preventative Maintenance Kit PCK-4.

Figure 11 • Clean the Printer



### Clean the Exterior

Clean the exterior of the printer with a lint-free cloth. Do not use harsh, abrasive cleaning agents or solvents. If necessary, use a small amount of mild detergent or desktop cleaner.

### Clean the Interior

Remove any accumulated dirt and lint from the interior of the printer using a soft bristle brush or vacuum cleaner. Inspect this area after every four rolls of media.

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**Caution** • No lubricating agents of any kind should be used on this printer! Some lubricants will damage the finish and the mechanical parts inside the printer.

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### Replace the Fuse

A user-replaceable AC power fuse is located just below the AC power switch at the rear of the printer. The replacement fuse is a 3AG fast-blow style rated at 5 Amp/250 VAC. Before replacing the fuse, turn the AC power switch off and unplug the AC power cable.

To replace the fuse, insert the tip of a flat-blade screwdriver into the slot in the end of the fuse holder end cap. Slightly press in the end cap and turn the screwdriver counterclockwise. The end cap disengages from the fuse holder and permits removal of the fuse.

To install a new fuse, reverse the sequence.





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