

Replacing a Partially Used Transfer Ribbon

To remove used transfer ribbon, perform the following steps.

1. Cut the ribbon from the take-up roll.
2. Remove the take-up roll and discard used ribbon.
3. Remove the supply roll and tape the end of any fresh ribbon to prevent it from unwrapping. When reinstalling a partially used supply roll, tape the cut end onto the empty take-up roll.

Adjusting the Print Width

Print width must be set when:

- You are using the printer for the first time.
- There is a change in media width.

Print width may be set by:

- The Windows printer driver or application software such as ZebraDesigner™.
- The five-flash sequence in *Feed Button Modes* on page 106.
- Controlling printer operations with ZPL programming; refer to the Print Width (^PW) command (consult your *ZPL Programming Guide*).
- Controlling printer operations with EPL Page Mode programming, refer to the Set Label Width (α) command (consult your *EPL Programmer's Guide*).

Adjusting the Print Quality

Print quality is influenced by the heat (density) setting of the printhead, the **print speed**, and the media in use. Experiment with these settings to find the optimal mix for your application. Print quality can be set with the Zebra Setup Utility's 'Configure Print Quality' routine.



Note • Media manufactures may have specific recommendations for speed settings for your printer and the media. Some media types have lower maximum speeds than your printer's maximum speed.

The relative darkness (or density) setting can be controlled by:

- The six-flash sequence in *Feed Button Modes* on page 106. This will overwrite any ZPL and EPL programmed darkness/density settings.
- The Set Darkness (~SD) ZPL command (consult your *ZPL Programming Guide*).
- The Density (D) EPL command (consult your *EPL Programmer's Guide*).

If you find that the **print speed** needs to be adjusted, use:

- The **Windows printer driver or application software** such as ZebraDesigner™.
- The Print Rate (^PR) command (consult your *ZPL Programming Guide*).
- The Speed Select (S) command (consult your *EPL Programmer's Guide*).

Print Quality Problems

No print on the label.

- The media may not be direct thermal media when printing without ribbon (i.e. thermal transfer). The media may not be direct thermal media. See the test procedure *Determining Thermal Media Types* on page 39.
- For thermal transfer printers, the media may not be outside wound or approved for use in the G-Series printer. See the following ribbon test procedures: *Ribbon Test with Adhesive* on page 42 and *Ribbon Scratch Test* on page 43.
- Is the media loaded correctly? Follow the instructions for *Loading Roll Media* on page 15 in the Getting Started section. For printing using transfer ribbon, see *Loading Transfer Ribbon* on page 19.

The printed image does not look right.

- The printhead is dirty. Clean the printhead.
- The printhead is under temperature.
- Adjust the print darkness and/or print speed.
 - Use the **^PR (speed)** and **~SD (darkness)** commands referenced in the ZPL Programming Guide.
 - Use the **D (darkness/density)** and **S (speed)** commands in the *EPL Programmer's Guide*.
 - Manually adjust print darkness with the six-flash sequence of *Feed Button Modes* on page 106.
 - The **Windows printer driver or application software** may change these settings and may require a change to optimize print quality.
- The media being used is incompatible with the printer. Be sure to use the recommended media for your application, and always use Zebra-approved labels and tags.
- Verify that the printer power supply in use is rated at 100 Watts of DC output.
- The printhead has worn out. The printhead is a consumable item and will wear out due to friction between the media and printhead. Using unapproved media may shorten life or damage your printhead. Replace the printhead.
- The platen may need cleaning or replacement. The platen (driver) roller maybe losing traction due to:
 - Foreign objects attached to its surface,
 - The rubbery smooth surface has become polished and slippery, or
 - There is damage to the normally smooth and flat print surface such as box knife cuts.

Printer Settings

The user selectable and programmable Printer settings are shown in the table below.

Printer Settings		
COMM. (user selectable COM port settings)		
Setting	Default Value	Optional Values
BAUD	9600	300 600 1200 9600 14400 19200 28800 32400 57600 115200
DATA BITS	8	7 8
PARITY	NONE	NONE EVEN ODD
FLOW	DTR & XON / XOFF	XON / XOFF DTR & XON / XOFF DSR / DTR RTS / CTS
MEDIA (display only)		
Setting	Default Value	Optional Values
MEDIA	GAP	GAP MARK RECEIPT
RIBBON	YES	YES NO
PRINT (display only)		
Setting	Default Value	Optional Values
SPEED	6 IPS	2 IPS 3 IPS 4 IPS 5 IPS 6 IPS
ZPL Darkness	10.0	0.0 - 30.0

Table 2 • ZPL Commands and Configuration Receipt Callout Cross-Reference

Command	Listing Name	Description
~SD	DARKNESS	<i>Default: 10.0</i>
^PR	PRINT SPEED	<i>Default: 6 IPS / 152.4 mm/s (max.)</i>
~TA	TEAR OFF	<i>Default: +000</i>
^MN	MEDIA TYPE	<i>Default: GAP/NOTCH</i>
	SENSOR TYPE	<i>Default: WEB</i>
	SENSOR SELECT	<i>Default: AUTO (^MNA - Auto-Detect)</i>
^MT	PRINT METHOD	<i>Default: NONE</i>
^MT	PRINT METHOD	THERMAL-TRANS or DIRECT-THERMAL
^PW	PRINT WIDTH	<i>Default: 832 (dots)</i>
^LL	LABEL LENGTH	<i>Default: 1225 (dots) (the value constantly re-calibrates with automatic Web-Gap detection for label media)</i>
^ML	MAXIMUM LENGTH	<i>Default: 39.0IN 989MM</i>
—	USB COMM.	<i>Connection Status: Connected / Not Connected</i>
—	PARALLEL COMM.	<i>Connection Available: BIDIRECTIONAL</i>
^SCa	BAUD	<i>Default: 9600</i>
^SC,b	DATA BITS	<i>Default: 8 BITS</i>
^SC,,c	PARITY	<i>Default: NONE</i>
^SC,,,,e	HOST HANDSHAKE	<i>Default: DTR & XON/XOFF</i>
^SC,,,,,f	PROTOCOL	<i>Default: NONE</i>
	SER COMM. MODE	<i>Default: AUTO</i>
	CUTTER TYPE	<i>Option Present: LINER/TAG FULL (cut)</i>
^CT / ~CT	CONTROL CHAR	<i>Default: <~> 7EH</i>
^CC / ~CC	COMMAND CHAR	<i>Default: <^> 5EH</i>
^CD / ~CD	DELIM./CHAR	<i>Default: <, > 2CH</i>
^SZ	ZPL MODE	<i>Default: ZPL II</i>
^MFa	MEDIA POWER UP	<i>Default: NO MOTION</i>
^MF,b	HEAD CLOSE	<i>Default: FEED</i>
~JS	BACKFEED	<i>Default: DEFAULT</i>
^LT	LABEL TOP	<i>Default: +000</i>
^LS	LEFT POSITION	<i>Default: +0000</i>
~JD / ~JE	HEXDUMP	<i>Default: NO (~JE)</i>

From this point in the Configuration Receipt listing, the printout has sensor settings and values are displayed to troubleshoot sensor and media operations. These are typically used by Zebra Tech Support to diagnose printer problems.