

## 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 Zebra Designer.
- The five-flash sequence in *Feed Button Modes* on page 77.
- 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 (q) command (consult your *EPL Programmer's Guide*).

## Adjusting the Print Quality

Print quality is influenced by the heat or density (setting) of the printhead, the print speed, and the type of media you are using. Only by experimenting will you find the optimal mix for your application.



**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 77. 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 Zebra Designer.
- 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. See the test procedure *Determining Thermal Media Types* on page 29.
- Is the media loaded correctly? Follow the instructions for *Loading Roll Media* on page 13 in the Getting Started section.

### 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 77.
  - 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.
- 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.

### There are long tracks of missing print (blank vertical lines) on several labels.

- The printhead is dirty. Clean the printhead.
- The printhead elements are damaged.

Power On Modes	
Flash Sequence	Action
*	<b>Configuration Status</b> - Prints a detailed printer configuration status label. The label can be used to verify printing, assist printer to computer communication configuration, maintenance, troubleshooting, and help us with customer care communications.
* **	<b>Standard Media Calibration</b> - The printer detects and sets media type and media length, and it adjusts the media sensors for optimal performance with the installed media. The printer will feed one to four labels.  <i>Note: Users familiar with the Zebra EPL desktop printer use this Feed mode to replace power-up AutoSensing calibration.</i>
* ** ***	<b>Serial Port Configuration</b> - Applies only to printers with serial interface ports. To reset the communication parameters. Press and release the Feed button while the LED rapidly flashes amber and green.  For autobaud synchronization: Send the ^XA^XZ command sequence to the printer while the LED rapidly flashes amber and green. When the printer and host are synchronized, the LED changes to solid green. NOTE: No labels will print during autobaud synchronization.
* ** *** ****	<b>Factory Defaults</b> - Resets the printer to the default factory settings and modes. See the configuration label for a list of the primary settings affected by this Feed Mode option. Other settings are exclusively set, viewed and controlled by programming are also reset. The printer then performs a standard media calibration.  Once the printer has entered the Factory Default mode, the status light will turn amber for three (3) seconds. During that time you may do two things: Do nothing and the printer will reset the factory defaults automatically as described above OR press and hold the feed button to enter a factory default reset modes for printers with a network printer option. Releasing the button after the first flash resets the network factory options only. Releasing the button after the second flash sequence (two flashes) will reset the printer defaults only. Releasing the button after the third flash sequence (three flashes) will reset both the printer and network settings.
* ** *** **** *****	<b>Print Width Adjustment</b> - Prints a succession boxes starting at the minimum print width and ending in the printer's maximum print width in 4mm increments. Press the Feed button once when the printer has reached the desired maximum print width. Note that the printer driver and applications can override this setting.
* ** *** **** ***** *****	<b>Print Darkness (Density) Adjustment</b> - Prints a succession of bar code simulation patterns starting at the minimum darkness (print density/heat) and ending in the printer's maximum darkness in increments of four (4) using the ZPL darkness setting range values. Press the Feed button once the pattern is clear and legible. Do not continue to increase the darkness setting. Bar code line widths may become distorted reducing readability. Note that the printer driver and applications can override this setting.
* ** *** **** ***** ***** *****	<b>Manual Media Calibration</b> - The printer runs extensive tests to detect and set media type and media length, and then it adjusts the media sensors for optimal performance with the installed media. Manual calibration is recommended whenever you are using pre-printed media, print on the liner or if the printer will not correctly auto calibrate. A graphical profile of the media sensing will print. See <a href="#">Manual Calibration on page 73</a> for more details and considerations.

**If the Feed button remains pressed after a 8-flash sequence, the printer exits the configuration mode when the Feed button is released.**