**ZEBRA** TECHNOLOGIES

# V60.17.x, V60.16.x, V60.15.x, and V60.14.x Summary of Firmware Changes

This document summarizes the following V60.17.x, V60.16.x, V60.15.x, and V60.14.x firmware releases:

## V60.17.15Z

**Release Date: 22 January 2014**

This firmware release includes features of the previous *V60.17.14ZA* release. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---------------|---------------------|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

> **!** **Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:
>
> • a Hardware ID of V06 or V07,
> • existing firmware version V40.10.1 and lower, or
> • a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected

• A problem where the Odometer on some *PAX*4 units was not saved across power cycles has been corrected.
• Power management for the stepper motor has been enhanced.

# V60.17.14ZA

**Release Date: 03 April 2013**

This firmware release includes features of the previous *V60.17.14Z* release. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected

- Using a "\ (" followed by any non-numeric character (for example, "\ (a" ) in a Field Block field (`^FB`) is now correctly supported.
- Enhanced memory management to resolve text field not printing issue.
- The Ribbon Low signal's default behavior has been corrected. The default is now "active low".
- Printer will now continue printing when the Real Time Clock (RTC) reaches 00:00:00.

# V60.17.14Z

**Release Date:  14 September 2012**

This firmware release includes features of the previous *V60.17.13Z* release. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected

Start Print Signal is now viewable from the control panel LCD.

## Changes

None.

# V60.17.13Z

**Release Date:  21 July 2012**

This firmware release includes features of the previous *V60.17.12Z* release. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™

- 220*Xi*III*Plus*™
- *PAX4*™ series

- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**!**  **Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected

The 200 dpi 110*PAX*4, 170*PAX*4, and 170III*Plus* printer models will no longer operate over the current darkness setting when printing at maximum speed.

## Changes

None.

# V60.17.12Z

**Release Date: 23 May 2012**

This firmware release includes features of the previous *V60.17.11ZB* release. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™

- 220*Xi*III*Plus*™
- *PAX4*™ series

- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important •** Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected

- The reporting for "Number of formats in the Receive buffer" has been corrected.
- Unicode characters that do not have an entry in the current DAT table and are used in a QR code are now processed correctly.
- `^HZA` now correctly reports the Antenna Port settings.
- An RSS type CC-C barcode that has an encoding error will no longer print a corrupted barcode. Instead, no barcode is printed.

- The behavior of the Delayed Cut feature has been enhanced so that after a non-printing format is sent to the printer, the printer will cut when the ~JK command is sent.
- Odometer writing has been optimized to enhance printer throughput.
- When running in print modes other than Applicator, printing will not stop if Start Print is set to level mode and Start Print signal is held asserted.
- The Start Print pulse mode now works in all print modes.
- When Slew and Backfeed speeds are set and saved, those settings will be persistent through a power cycle.
- Print Quality of short barcodes on *PAX*4 printers has been enhanced.
- The date off-set for Real Time clock fields now carry over correctly when the day count is greater than or equal to the month offset maximum count.
- The printer web pages will now be available when Format Prefix is changed from the default value.
- Support for SHA224, SHA256, SHA384, SHA512 certificates has been added to the ZebraNet b/g Print Server.
- WEP128 with Shared Authentication is now supported on the ZebraNet b/g Print Server.
- The Internal Wired Print Server & ZebraNet b/g Print Server now support the -n option for FTP.
- LPR support has been enhanced to support additional  protocol use scenarios on the ZebraNet b/g Print Server and Internal Wired Print Server.
- When a print server is installed the format card menu no longer displays the option of formatting A: memory.
- Print server web pages are now available after a network reset.
- The print server contact link now points to the Zebra Support Web Site.
- The ZebraNet b/g Print Server and Internal Wired Print Server have been optimized to handle additional port scanning scenarios.
- Front Panel/ZBI interactions have been optimized to avoid conflicts.

## Changes

- *Xi*III*Plus* and *PAX*4 printers now support a device.command_override Set-Get-Do command, which allows the user to define a list of commands for the printer to ignore. The commands to ignore can be expressed as comma delimited list or as a file stored in the E: drive memory location. Refer to the Programming Guide for more details.
- *Xi*III*Plus* and *PAX*4 printers now support a "data ready activation" Set-Get-Do command—device.applicator.data_ready_activation—with choices print and format.
  - print indicates the data ready is activated on printing labels only.
  - format indicates the data ready is activated on all formats.
- The *Xi*III*Plus* and *PAX*4 printers now support a Applicator Port signal Inversion Feature.

# V60.17.11ZB

**Release Date:  05 December 2011**

This firmware release includes features of the previous *V60.17.11Z* release. It is for use with the following printer models:

- 110*Xi*III*Plus™*
- 220*Xi*III*Plus™*
- Z4Mplus™ with 4 MB of flash memory
- 140*Xi*III*Plus™*
- *PAX4™* series
- Z6Mplus™ with 4 MB of flash memory
- 170*Xi*III*Plus™*
- 105*SL™* with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**!**

**Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected

- PAX units will now retain `S` and `B` parameters of `^PR` through a power cycle.
- When running in print modes other than Applicator mode, printing will not stop if the Start Print signal is set to level mode and the Start Print signal is held asserted.
- Using different raw ports on internal wired print servers and wireless printservers is now supported.
- The internal wired print server has been enhanced to tolerate higher levels of traffic.
- The internal wired and wireless print servers will now maintain connectivity when receiving DCHP option 60 requests.

# V60.17.11Z

**Release Date: 07 April 2011**

This firmware release includes features of the previous *V60.17.9Z* release. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™

- 220*Xi*III*Plus*™
- *PAX4*™ series

- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097 <br><br> This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important •** Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected

- Meter display has been modified for better display on printer.
- Random numbers will no longer be displayed for "x of y printed" content on front panel.
- Polish translation for `TEAR OFF` has been updated.
- Polish translation for `RIBBON OUT` has been updated.
- Support for using FNC1 in code 128 now complies to AIM ITS/99-005 4 November 1999.
- FTP connections are no longer incorrectly closed during data transmission.
- Print servers now properly handles fragmented TCP packets.

- Issues found when printing via LPD have been resolved.
- Issue with wireless print servers not connecting to certain access points when using WPA-PSK is resolved.
- Issue with authentication failure when using PEAP on IAS2008 server is resolved.
- Issue with wireless print servers losing communication for extended periods of time with certain controllers when configured for WPA-LEAP is resolved.
- Applicator mode no longer affects printer when printing at power up.
- *PAX4* Prinhead resistance value is now persistant after power cycles.
- Russian translations for WEB and DELAYED CUT have been updated.
- ~JS has been updated function correctly when lower case letters are used in parameters.
- Printserver will now try to renew DHCP address once lease is up.
- File names with more than 8 characters will no longer be changed during the defragmentation process.
- RAM management has been improved to reduce out of memory errors .

## Changes

- The ZebraNet Wireless Plus Print Server option board firmware has been updated to version 2.12.1761.
- The ZebraNet Internal Wireless Plus Print Server option board firmware has been updated to version 2.12.1761.
- The ZebraNet b/g Print Server is now supported for the *PAX4* series printers.

# V60.17.9Z

**Release Date:  03 September 2010**

This firmware release includes features of the previous V60.17.7Z release. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097 |
| | This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

> **!**
>
> **Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:
>
> - a Hardware ID of V06 or V07,
> - existing firmware version V40.10.1 and lower, or
> - a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected

- Only one .DAT file will be listed as the selected file on the printers web page (as chosen by the `^SE` command).
- The printer will now correctly calibrate labels shorter than 6 in. after loading printer defaults.

## Changes

None.

# V60.17.7Z

**Release Date: 09 July 2010**

This firmware release includes features of the previous V60.17.5Z release. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™

- 220*Xi*III*Plus*™
- *PAX4*™ series

- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097 <br> This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

> **!** **Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:
>
> - a Hardware ID of V06 or V07,
> - existing firmware version V40.10.1 and lower, or
> - a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected

- The printer will no longer pause between printed labels when configured for Applicator Port Mode 1.
- The reset counter will now remain at zero when `~RO1` is sent after a power cycle.
- The printer can now successfully process the SGD command `file.run` consistently.

# Changes

Updated the *^CM — Change Memory Letter Designation* command to include the multiple alias parameter (see below).

## ^CM — Change Memory Letter Designation

**Description**  The ^CM command allows you to reassign a letter designation to the printer's memory devices. If a format already exists, you can reassign the memory device to the corresponding letter without forcing, altering, or recreating the format itself.

Using this command affects every subsequent command that refers to specific memory locations.

**Format**  ^CMa,b,c,d

| Parameters | Details |
|---|---|
| a = memory alias for B: | *Accepted Values:* B:, E:,R:, A:, and NONE<br>*Default Value:* B: |
| b = memory alias for E: | *Accepted Values:* B:, E:,R:, A:, and NONE<br>*Default Value:* E: |
| c = memory alias for R: | *Accepted Values:* B:, E:,R:, A:, and NONE<br>*Default Value:* R: |
| d = memory alias for A: | *Accepted Values:* B:, E:,R:, A:, and NONE<br>*Default Value:* A: |
| e = multiple alias | *Accepted Values:* M, or no value<br>*Default Value:* no value<br>• This parameter is supported on Xi4 and ZM400/ZM600 printers using firmware V53.17.7Z or later.<br>• This parameter is supported on G-Series printers using firmware versions v56.17.7Z and v61.17.7Z or later.<br>• This parameter is supported on printers using firmware V60.17.7Z or later. |

**Comments**  Unless the e (multiple alias) parameter is used, when two or more parameters specify the same letter designator, all letter designators are set to their default values.

It is recommended that after entering the ^CM command, ^JUS is entered to save changes to EEPROM. Any duplicate parameters entered will reset the letter designations back to the default.

If any of the parameters are out of specification, the command is ignored.

**Example 1 •** This example designates letter E: to point to the B: memory device, and the letter B: to point to the E:memory device.

```
^XA
^CME,B,R,A
^JUS
^XZ
```

**Example 2 •** This example designates that content sent to, or read from the B: or E: memory locations will be sent to or read from the E: memory location.

```
^XA
^CME,E,R,A,M
^JUS
^XZ
```

**Example 3 •** This example designates that content sent to, or read from the A: or E: memory locations will be sent to or read from the E: memory location.

```
^XA
^CMB,E,R,E,M
^JUS
^XZ
```

**Example 4 •** This example designates that content sent to, or read from the A:, B: or E: memory locations will be sent to or read from the E: memory location.

```
^XA
^CME,E,R,E,M
^JUS
^XZ
```

**Note •** Examples 2, 3 and 4 are the only valid uses of the multiple alias parameter.

# V60.17.5Z

**Release Date: 18 January 2010**

This firmware release includes features of the previous V60.17.4Z release. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™

- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br><br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**!** **Important •** Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Changes

None.

## Issues Corrected

- Wireless Print Server will no longer send a continuous DHCP-DISCOVER when "DHCP" is the only selected addressing method.

# V60.17.4Z

**Release Date: 31 December 2009**

This firmware release includes features of previous V60.13.0.x, V60.14.x, V60.15.x, V60.16.x, and V60.17.x releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™

- 220*Xi*III*Plus*™
- *PAX4*™ series

- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Changes

None.

## Issues Corrected

- Print Server will now completely close a connection after a connection timeout
- A print job will resume after the print head is opened, closed and an error has been cleared
- Multiple connections being opened and closed at the same time will no longer cause labels to print out of order

# V60.17.2ZA

**Release Date: 12 October 2009**

This firmware release includes features of previous V60.13.0.x, V60.14.x, and V60.15.x releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™

- 220*Xi*III*Plus*™
- *PAX4*™ series

- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097 |
| | This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**!** **Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Changes

The `ip.mirror.reset_delay` command allows you to configure the number of seconds between when the printer receives the last byte of the last file from the /commands directory and when the printer resets during a mirror event. The default is five seconds. This new command makes it possible to place files that require processing by the ZPL or SGD engines in the /command directory. Zebra recommends placing files that require processing by the ZPL or SGD engines into the /command directory and using the ip.mirror.reset_delay command, rather than performing character substitution on content being placed in the /files directory. The default setting for the ip.mirror.reset_delay command is 5 seconds, in some cases it may be necessary to use a longer delay to allow for full processing of longer or more complex files.

The `/commands` directory — with the use of the `ip.mirror.reset_delay` command — is now for files that need processing by the ZPL or SGD engine. This includes:

- Stored formats using the `^DF` command
- Saved formats using the `^IS` command
- Graphics and font files that do need processing to be stored (content using the `~DY`, `~DG`, `~DS`, `~DT`, and `~DU` commands)

The `/files` directory is for use with files that do not require processing by the ZPL or SGD engines. This includes:

- .ttf, .png or .bmp files (that previously would have been sent using `~DY`)
- .wml files
- ZBI programs
- Wireless certificate files
- .nrd files (containing either certificate content or command content)

## ip.mirror.reset_delay

**.17↑**

**Description**  This command specifies the number of seconds between when the printer receives the last byte of the last file from the /commands directory and when the printer resets during a mirror event.

**Type** `getvar;setvar`

**Note •** This command is available in V53.17.2ZA, V56.17.3ZA, V60.17.2ZA, V61.17.3ZA and later versions.

This table identifies the command for this format:

| Commands | Details |
|----------|---------|
| getvar | This command retrieves the number of seconds between when the printer receives the last byte of the last file from the /commands directory and when the printer resets during a mirror event. <br> *Format:* `! U1 getvar "ip.mirror.reset_delay"` |
| setvar | This command sets the number of seconds between when the printer receives the last byte of the last file from the /commands directory and when the printer resets during a mirror event. <br> *Format:* `! U1 setvar "ip.mirror.reset_delay" "value"` <br> *Values:* 0 - 900 (seconds) <br> *Default Value:* `"5"` |

**Example •** This `setvar` example shows the value set to `"10"`.

```
! U1 setvar "ip.mirror.reset_delay" "10"
```

When the setvar value is set to `"10"`, the getvar result is `"10"`.

**Note •** The default setting for the `ip.mirror.reset_delay` command is 5 seconds; in some cases it may be necessary to use a longer delay to allow for full processing of longer or more complex files.

## Issues Corrected

- When a ^SE command is used, and a .dat file is in use, the printer will now correctly resume a print job after the print head is open and closed.
- A printer will now be available for communication with after a firmware download via USB.
- The value for ?wlan.ip.addr ? will now be cleared after a reset.

# V60.17.2Z

**Release Date:  02 September 2009**

This firmware release includes features of previous V60.13.0.x, V60.14.x, and V60.15.x releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important •** Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

# Changes

| Head Cold Warning | The Head Cold warning is now disabled by default. |
|---|---|
| Mirror | Mirror is a feature that gives you the ability to:<br><br>• Centrally manage and monitor the deployment of your Zebra printers<br>• Centrally configure and maintain your Zebra printers through remote updates<br>• Remotely monitor printer updates – via the "Feedback" feature<br>• There are several Set/Get/Do (SGD) commands that can initiate Mirror. For details seethe ZPL Manual.<br><br>**Benefits**<br><br>• When using Mirror, updating the configuration and firmware on the printer is remotely managed from a centralized FTP server. Configurations can be uniformly deployed to individual printers or to groups of printers. Unique Configurations can also be targeted to printers as needed. Through the "Feedback" feature, Administrators can easily log and monitor configuration updates on a printer-by-printer basis. Typical uses of Mirror include:<br>• Configuring printers as they are first received.<br>• Performing scheduled maintenance updates, sending firmware, fonts, graphics and other objects to the printer as needed.<br>• Changing printer Configurations in order to move printers from one role to another.<br>• Supported printers and print servers:<br><br><table><tr><th>Printer</th><th>Print Servers</th></tr><tr><td>*Xi*III*Plus*™ - series</td><td>• Internal Wireless Plus</td></tr><tr><td>105*SL*™</td><td>• Internal Wireless Plus</td></tr><tr><td>*PAX*4™</td><td>• Internal Wireless Plus</td></tr></table><br>Print Servers connected to the parallel port, either externally or internally, are not supported for Mirror use.<br><br>See the ZPL Manual for full details on the Mirror feature. |
| ZBI 2.1 | ZBI 2.1 programs can now leverage comma separated variable (CSV) files and text files for the purpose of storing data on the printer. See the ZPL manual for examples and details on the CSVLOAD, CSVSTORE, TXTLOAD and TXTSTORE commands. |
| Wireless Plus | The Wireless Plus option board firmware has been updated to version 2.10.1761. |

## Issues Corrected

- Changing REPRINT MODE during print job no longer impacts the "Printing X of X" counter on the control panel.
- The / and \ characters are now allowed in EAN128 barcodes.
- The hexadecimal indicator value of B0 can now be used in the ^FH command.
- USB port buffer management has been improved.
- Variable data printed via XML-Enabled printing can now include commas.
- The ZBI READ command will now read up to the maximum amount of bytes specified.
- The printer now requires the user to enter a password when changing the "IP PROTOCOL", "IP ADDRESS", "SUBNET MASK" OR "DEFAULT GATEWAY".
- The sequence of the Full Media and Ribbon Calibration procedure has been corrected.
- The Ribbon Low Mode will now remain disabled after a power cycle when it is configured for Disabled.
- End Print Signal, when enabled, is now correctly sent for each label.
- The Poor Signal and No Signal warning are now functioning correctly.
- The "Cover Open" warning on PAX units is now spelled correctly in German.
- The integrated internal wired and wireless print servers will now close the connection when the Host resets a connection that does not contain any data.

# V60.16.x

| Firmware | Release Date | Page | Firmware | Release Date | Page |
|---|---|---|---|---|---|
| *V60.16.6Z* | 16 February 2009 | 23 | *V60.16.3ZA* | 28 May 2008 | 28 |
| *V60.16.5Z* | 21 October2008 | 24 | *V60.16.3Z* | 11 April 2008 | 29 |
| *V60.16.4Z* | 13 June 2008 | 27 | *V60.16.2Z* | 03 March 2008 | 30 |
| *Using Older Firmware on Newer Printers* | | | | | 50 |

# V60.16.6Z

**Release Date: 16 February 2009**

This firmware release includes features of previous V60.13.0.x, V60.14.x, and V60.15.x releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™

- 220*Xi*III*Plus*™
- *PAX4*™ series

- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Changes

- HTTP POST has been enhanced to include an HTTP OK response. Jobs can be posted to the URL http://xxx.xxx.xxx.xxx/printer/pstprnt (where xxx.xxx.xxx.xxx is the IP address of the printer). Upon a successful HTTP Post event, the printer will respond with a HTTP OK response. The HTTP OK response will be sent to the IP address that transmitted the HTTP POST. Printers with this capability can be identified by the XML Schema version number 1.3 on the printers configuration label.

## Issues Corrected

- The `^FV` command now works correctly in TLC39 bar codes.
- The front panel now displays full Clean Head message sequence.
- The USB port will now perform a disconnect and reconnect after the `~JR` command is used.
- Multiple Set/Get/Do commands can now be used in the same script.
- The `~JN` command now causes no behavior change on the Z4M/Z6M.
- Unsolicited alerts now contain the day and month.
- If an incorrect password is used to enter the printer's Settings web pages, the web page will not continually return to the password page once the correct password is used.
- The total number of bytes in the `~DY` command will no longer act as a required parameter.
- The ZBI command `SERVERSOCKET` can now be used with or without the port number being defined if the port type is `TCP` (the default of `9100` will be used if the port type is `TCP`).
- When the Communications Mode `DIAGNOSTIC` is selected in the menu, and settings are saved from the control panel, the printer will now remain in `DIAGNOSTIC` mode.
- The Datamatrix barcode is now more tolerant of data that uses spaces in the `^FD` data.
- Use of the `^JB` command can no longer delete files that are marked as persistent.
- "On-printer" ZBI program debugging commands are now more reliably transmitted via the wired and wireless settings.
- The `^GFA` command, when used within a stored format now prints correctly.

# V60.16.5Z

**Release Date:  21 October2008**

This firmware release includes features of previous V60.13.0.x, V60.14.x, and V60.15.x releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097 |
| | This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

• a Hardware ID of V06 or V07,
• existing firmware version V40.10.1 and lower, or
• a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

# Changes

• Support added for the "SEH" brand PS105-Z and PS102-Z IPv6 print server.
• Rectangular Datamatrix bar codes are now supported. A new "aspect ratio" parameter has been added to the `^BX` command to support this new functionality. Refer to the *ZPL II Programming Guide* for complete details.

# Issues Corrected

• Printer web pages now load when using advanced wireless security settings.
• Intermittent image distortion issue when printing graphics no longer occurs.
• Formats using graphics and binary 02, 03, 0f characters now print correctly.
• 170*PAX*4 will no longer return to the pause state once the cover has been closed and the printer taken out of pause.

# Wired Note

It is recommended to use firmware version 1.01.6 or later on the external 10/100 PrintServer.

# Wireless Notes

The following items are issues Zebra has noted during testing with various wireless networking products:

- Conflicts can exist between the Symbol LA-4137CF and some Cisco Access Points. This is characterized by the RF card reaching the Maximum Retry timeout.
- Conflicts can exist between the 802.11B Symbol LA-4137CF and 802.11G support on some Access Points. One potential work-around is to disable G support on the Access Point.
- It is recommended to set WPA Handshaking to 1000.
- It is recommended to disable the Aironet Extensions.
- It is recommended to use Cisco Access Point firmware 12.3(8)JAE1 or later.
- The Wireless Plus option board firmware has been updated to version 2.9.1761.

**Table 1 • Wireless Plus PrintServer and Internal Wireless Plus PrintServer Security Support**

| Securities Supported | Cisco CB21 (CardBus) | Cisco 350 (PCMCIA) | LA-4121 (PCMCIA) | LA-4137CF (Compact Flash) | Internal Wireless Plus |
|---|---|---|---|---|---|
| Open | Yes | Yes | Yes | Yes | Yes |
| KERBEROS | Not Supported | Not Supported | Yes | Yes | Not Supported |
| WEP 40-bit & 128-bit | Yes | Yes | Yes | Yes | Yes |
| LEAP | Yes | Yes | Yes | Yes | Yes |
| PEAP | Yes | Not Supported | Yes | Yes | Yes |
| EAP- FAST | Yes | Not Supported | Yes | Yes | Yes |
| EAP-TLS | Yes | Not Supported | Yes | Yes | Yes |
| EAP-TTLS | Yes | Not Supported | Yes | Yes | Yes |
| WPA PSK | Yes | Yes | Yes | Yes | Yes |
| WPA LEAP | Yes | Yes | Yes | Yes | Yes |
| WPA PEAP | Yes | Yes | Yes | Yes | Yes |
| WPA EAP- FAST | Yes | Yes | Yes | Yes | Yes |
| WPA EAP-TLS | Yes | Yes | Not Supported | Yes | Yes |
| WPA EAP-TTLS | Yes | Yes | Not Supported | Yes | Yes |
| WPA2 PSK | Yes | Not Supported | Not Supported | Not Supported | Yes |
| WPA2 LEAP | Yes | Not Supported | Not Supported | Not Supported | Yes |
| WPA2 PEAP | Yes | Not Supported | Not Supported | Not Supported | Yes |
| WPA2 EAP- FAST | Yes | Not Supported | Not Supported | Not Supported | Yes |
| WPA2 EAP-TLS | Yes | Not Supported | Not Supported | Not Supported | Yes |
| WPA2 EAP-TTLS | Yes | Not Supported | Not Supported | Not Supported | Yes |

# V60.16.4Z

**Release Date:  13 June 2008**

This firmware release includes features of previous V60.13.0.x, V60.14.x, and V60.15.x releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™

- 220*Xi*III*Plus*™
- *PAX4*™ series

- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097 |
| | This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

!  **Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Changes

- New SetGetDo Commands. Refer to the *ZPL II Programming Guide* for complete details.
- The Wireless Plus option board firmware has been updated to version 2.7.1761.
- Support for the USPS Intelligent Mail Barcode (IMB) was added. This barcode is also known as OneCode. Elements in USPS IMB have 4 states - Full, Ascender, Tracker and Descender.

→ **Example** • This is an example of a USPS Intelligent Mail bar code:

| ZPL II CODE | USPS INTELLIGENT MAIL BAR CODE |
|---|---|
| `^XA`<br>`^FO100,040^BZ,40,,,3`<br>`^FD00123123456123456789^FS`<br>`^XZ` | |

## Issues Corrected

- Pause mode on 170*PAX*4 now clears correctly after cover open error.
- Updated wireless print server to work with latest revision of CISCO AP firmware.

# V60.16.3ZA

**Release Date: 28 May 2008**

This firmware release includes features of previous V60.13.0.x, V60.14.x, and V60.15.x releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

* a Hardware ID of V06 or V07,
* existing firmware version V40.10.1 and lower, or
* a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate HARDWARE ID and FIRMWARE on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the HARDWARE ID shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected

* Timing of writes to memory cards has been enhanced to allow for variation in cards
* Wireless print servers now respond correctly to LPQ Stat inquiry.
* Wireless print servers now respond correctly to LPD job control messages.
* The torque used on *PAX*4 printer during calibration has been corrected.

# V60.16.3Z

**Release Date: 11 April 2008**

This firmware release includes features of previous V60.13.0.x, V60.14.x, and V60.15.x releases. It is for use with the following printer models:

* 110*Xi*III*Plus*™
* 140*Xi*III*Plus*™
* 170*Xi*III*Plus*™
* 220*Xi*III*Plus*™
* *PAX4*™ series
* Z4Mplus™ with 4 MB of flash memory
* Z6Mplus™ with 4 MB of flash memory
* 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
| --- | --- |
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message Download Not Supported. The printer will then be reset and return to using the firmware currently loaded on the unit.

> ❗ **Important •** Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:
> - a Hardware ID of V06 or V07,
> - existing firmware version V40.10.1 and lower, or
> - a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.
>
> To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Changes

- ZebraNet® Internal Wireless Plus print server is now supported for the 105*SL*™ and *Xi*III*Plus*™ series printers.

# V60.16.2Z

**Release Date:  03 March 2008**

This firmware release includes features of previous V60.13.0.x, V60.14.x, and V60.15.x releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™

- 220*Xi*III*Plus*™
- *PAX4*™ series

- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

> **!** **Important •** Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:
> - a Hardware ID of V06 or V07,
> - existing firmware version V40.10.1 and lower, or
> - a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.
>
> To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Changes

- V60.16.x and later firmware is ZBI 2.0-Ready
- ZBI 2.0 can be enabled by placing a ZBI 2.0 key on the printer via the ZBI Key Manager & Downloader utility. Printers can be ordered from the factory with the ZBI 2.0 option enabled.  Printers can be ZBI-Enabled in the field by purchasing and using a ZBI Key Kit. Printers can be ZBI-Enabled in the field by purchasing a key at www.zebrasoftware.com.
- Printers which have been ZBI-Enabled will not display a "Z" at the end of the firmware version string.  For example, a printer which has been ZBI-Enabled will display the firmware version as "V53.16.1", while a printer which has <u>not</u> been ZBI-Enabled will display the firmware version as "V53.16.1Z"
- The printer configuration label will display the ZBI status for the printer:

  - ZBI-Enabled

    ```
    ENABLED............ ZBI
    2.0................ ZBI VERSION
    READY.............. ZBI STATUS
    ```

  - Not ZBI-Enabled

    ```
    DISABLED........... ZBI
    2.0................ ZBI VERSION
    ```

  - The printer configuration label will list which ZBI program is running.

    ```
    ENABLED............ ZBI
    2.0................ ZBI VERSION
    CHOICES.BAS........ ZBI STATUS
    ```

- ZBI 2.0 is backwards compatible with previous versions of ZBI. Any code which was specifically written to handle a maximum string length of 255 characters will need to be reviewed to ensure it works with unlimited string lengths.
- Other new ZBI 2.0 Features:

  - Applicator port control

  - List ZBI programs from the front panel

  - Start/Stop ZBI programs from the front panel

- Button presses on front panel can be registered as events in ZBI programs.

- Support for longer strings, the length of the string dependent on available memory.

- Support for NULL values in Strings and String operations

- SNMP & Set/Get/Do (SGD) Control of ZBI

- On-printer Debugging (via ZBI-Developer)

- ZBI 2.0 Program Encryption

- ZBI 2.0 programs can be made hidden and/or persistent

- New ZBI 2.0 Commands:

| New ZBI 2.0 Commands | |
|---|---|
| ACCEPT | INTTOHEX$ |
| ADDBREAK | READ |
| AUXPORT_GETPIN | REGISTEREVENTS |
| AUXPORT_RELEASEPIN | SERVERSOCKET |
| AUXPORT_SETPIN | SPLIT |
| AUXPORT_STEALPIN | SPLITCOUNT |
| CLIENTSOCKET | SUB |
| CLOSE ALL | TCPX |
| DELBREAK | TRIGGEREVENT |
| HANDLEEVENT | UNREGISTEREVENTS |
| HEXTOINT | WRITE |

\* See the latest ZPL manual (available at www.zebra.com) for details on new commands.

## Issues Corrected and Items Changed

- *PAX*4 printers will go into pause when the cover is opened.
- The `^HW` command now offer a new parameter to control the response format.*
- Closing the console from within a running ZBI program now closes the console.
- Datamatrix now correctly serializes long alphanumeric strings.
- Characters in the Msung.font are no longer replaced with the ~ character when the format is sent multiple times.

\* See the latest ZPL manual (available at www.zebra.com) for details on new commands.

**Table 2 • Wireless Plus PrintServer Security Support**

| Securities Supported | Cisco CB21 (CardBus) | Cisco 350 (PCMCIA) | LA-4121 (PCMCIA) | LA-4137CF (Compact Flash) |
|---|---|---|---|---|
| Open | Yes | Yes | Yes | Yes |
| KERBEROS | Not Supported | Not Supported | Yes | Yes |
| WEP 40-bit & 128-bit | Yes | Yes | Yes | Yes |

**Table 2 • Wireless Plus PrintServer Security Support** *(Continued)*

| Securities Supported | Cisco CB21 (CardBus) | Cisco 350 (PCMCIA) | LA-4121 (PCMCIA) | LA-4137CF (Compact Flash) |
|---|---|---|---|---|
| LEAP | Yes | Yes | Yes | Yes |
| PEAP | Yes | Not Supported | Yes | Yes |
| EAP- FAST | Yes | Not Supported | Yes | Yes |
| EAP-TLS | Yes | Not Supported | Yes | Yes |
| EAP-TTLS | Yes | Not Supported | Yes | Yes |
| WPA PSK | Yes | Yes | Yes | Yes |
| WPA LEAP | Yes | Yes | Yes | Yes |
| WPA PEAP | Yes | Yes | Yes | Yes |
| WPA EAP- FAST | Yes | Yes | Yes | Yes |
| WPA EAP-TLS | Yes | Yes | Not Supported | Yes |
| WPA EAP-TTLS | Yes | Yes | Not Supported | Yes |
| WPA2 PSK | Yes | Not Supported | Not Supported | Not Supported |
| WPA2 LEAP | Yes | Not Supported | Not Supported | Not Supported |
| WPA2 PEAP | Yes | Not Supported | Not Supported | Not Supported |
| WPA2 EAP- FAST | Yes | Not Supported | Not Supported | Not Supported |
| WPA2 EAP-TLS | Yes | Not Supported | Not Supported | Not Supported |
| WPA2 EAP-TTLS | Yes | Not Supported | Not Supported | Not Supported |

## Wireless Notes

The following items are issues Zebra has noted during testing with various wireless networking products:

- Conflicts can exist between the Symbol LA-4137CF and some Cisco Access Points. This is characterized by the RF card reaching the Maximum Retry timeout.
- Conflicts can exist between the 802.11B Symbol LA-4137CF and 802.11G support on some Access Points. One potential work-around is to disable G support on the Access Point.
- It is recommended to set WPA Handshaking to 1000.
- It is recommended to disable the Aironet Extensions.
- It is recommended to use Cisco Access Point firmware 12.3(8)JAE1 or later.
- The Wireless Plus option board firmware has been updated to version 1.51.1761.

## Wired Note

It is recommended to use firmware version 1.01.5 or later on the external 10/100 PrintServer.

# V60.15.x

| Firmware | Release Date | Page | Firmware | Release Date | Page |
|---|---|---|---|---|---|
| *V60.15.8ZB* | 14 February 2008 | 34 | *V60.15.2Z* | 12 February 2007 | 39 |
| *V60.15.8Z* | 19 November 2007 | 35 | | | |
| *Using Older Firmware on Newer Printers* | | | | | 50 |

## V60.15.8ZB

**Release Date:  14 February 2008**

This firmware release includes features of previous V60.13.0.x, V60.14.x, and V60.15.x releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Issues Corrected and Items Changed

- The "{" character is no longer intermittently encoded in the DataMatrix bar codes.

# V60.15.8Z

**Release Date:  19 November 2007**

This firmware release includes features of previous V60.13.0.#, V60.14.#, and V60.15.# releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

!

**Important •** Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

# Changes

- XML-Enabled Printing is now supported on printers running v60.15.8Z and later. See the Zebra XML-Enabled printer site at www.zebra.com/xml for additional details. This new feature does not alter the ZPL capabilities of the printer.
- A new SGD command "device.xml.enable" allows users to turn XML-Enabled printing on or off when used as a setvar, or to check the status of the XML-Enabled printing feature when used as a getvar.
- When the "Default Network" selection is made from the front panel, the following settings will be defaulted:
  - IP Address
  - Subnet Mask
  - Gateway
  - WINS server Address
  - Connection Timeout Checking
  - Connection Checking Timeout Value
  - ARP Broadcast Interval
  - Base Raw Port Number
  - IP Protocol
  - Client Identifier Settings
  - Set Antenna
  - Wireless Password
  - Transmit Rate
  - Wireless Card Values
  - Wireless Securities
- When the "Default Printer" selection is made from the front panel, the following wireless print server settings will be defaulted:
  - Primary Network Device
  - Wired Print Server Search
  - SNMP Settings
  - Set Primary
  - Set SMTP
  - Web Authentication Timeout
- New Wireless Securities (see compatibility chart below):
  - WPA2 PSK
  - WPA2 PEAP
  - WPA2 LEAP
  - WPA2 EAP-TLS
  - WPA2 EAP-TTLS

> - WPA2 EAP-FAST

- The Communications Diagnostics mode format has been changed to match the format used on the ZM400 and ZM600 printers.

- Set Date and Set Time are instantly updated when setting the value on the front panel.

- Menu items now use +/ - indicators if applicable.

- The version number on the LCD is left justified.

- Changing the language on the LCD is now immediate.

- Displays previously displayed with cursors now display with the gauge blocks.

- When it is necessary to display as asterisk, the phrase on the LCD will be moved one position so that the asterisk can be displayed to the left of the phrase.

- When `FORMAT CARD` is displayed on the LCD, the A memory option will be displayed on the left and the B memory option will be displayed on the right.

- `CONTROL PREFIX, FORMAT PREFIX, DELIMITER CHAR, LEFT POSITION, RTC DATE, RTC TIME` are displayed with the '+' and '-' characters to indicate incrementing and decrementing.

- Maintenance Alerts (via the `^MI` and `^MA` commands)*.

- Short Calibration (via the `^MF` command)*.

- The ability to reset the head cleaned counter (via the `~RO` command)*.

- The ability to print odometer, maintenance, alert of printhead information via the `~WQ` command*.

- The front panel will now display the Active PrintServer, if available. This value does not display if the parallel port connected print server has bi-directionality turned off, or if bi-directionality is turned off on the front panel.

- Support for Host MIB 1514 has been added for the Wireless Plus print server.

- The Wireless Plus option board firmware has been updated to version 1.49.1753.

* See the latest ZPL manual (available at www.zebra.com) for details on new commands.

## Issues Corrected and Items Changed

- Fonts in A: memory are now saved after a power cycle.
- Printer web pages now display correctly when the CB21 is used.
- Selected field miss-prints on 300dpi printers when Darkness is set to +25 are resolved.
- Blank lines no longer appear on date fields during long print runs.
- Use of `^FV` no longer automatically causes text to be capitalized.
- Formats with two `^FD` commands in same field no longer delay printing.
- Graphics sent and stored using the `^GFA ^DF` commands are now correctly recalled.
- Greek characters will now print correctly when using a XML format and Swiss 721 font.
- Inconsistent calibration of notched media on the Z4MPlus resolved.
- Issue with graphics printing in wrong orientation is resolved.
- Issue with graphic fields on left half of label being truncated is now resolved.
- Sending a `~JA` command to a printer in the same connection while also printing an XML format will cancel the format.

**Table 3 • Wireless Plus PrintServer Security Support**

| Securities Supported | Cisco CB21 (CardBus) | Cisco 350 (PCMCIA) | LA-4121 (PCMCIA) | LA-4137CF (Compact Flash) |
|---|---|---|---|---|
| Open | Yes | Yes | Yes | Yes |
| KERBEROS | Not Supported | Not Supported | Yes | Yes |
| WEP 40-bit & 128-bit | Yes | Yes | Yes | Yes |
| LEAP | Yes | Yes | Yes | Yes |
| PEAP | Yes | Not Supported | Yes | Yes |
| EAP- FAST | Yes | Not Supported | Yes | Yes |
| EAP-TLS | Yes | Not Supported | Yes | Yes |
| EAP-TTLS | Yes | Not Supported | Yes | Yes |
| WPA PSK | Yes | Yes | Yes | Yes |
| WPA LEAP | Yes | Yes | Yes | Yes |
| WPA PEAP | Yes | Yes | Yes | Yes |
| WPA EAP- FAST | Yes | Yes | Yes | Yes |
| WPA EAP-TLS | Yes | Yes | Not Supported | Yes |
| WPA EAP-TTLS | Yes | Yes | Not Supported | Yes |
| WPA2 PSK | Yes | Not Supported | Not Supported | Not Supported |
| WPA2 LEAP | Yes | Not Supported | Not Supported | Not Supported |
| WPA2 PEAP | Yes | Not Supported | Not Supported | Not Supported |
| WPA2 EAP- FAST | Yes | Not Supported | Not Supported | Not Supported |
| WPA2 EAP-TLS | Yes | Not Supported | Not Supported | Not Supported |
| WPA2 EAP-TTLS | Yes | Not Supported | Not Supported | Not Supported |

## Wireless Notes

The following items are issues Zebra has noted during testing with various wireless networking products:

- Conflicts can exist between the Symbol LA-4137CF and some Cisco Access Points. This is characterized by the RF card reaching the Maximum Retry timeout.
- Conflicts can exist between the 802.11B Symbol LA-4137CF and 802.11G support on some Access Points. One potential work-around is to disable G support on the Access Point.
- It is recommended to set WPA Handshaking to 1000.
- It is recommended to disable the Aironet Extensions.
- It is recommended to use Cisco Access Point firmware 12.3(8)JAE1 or later.

# V60.15.2Z

**Release Date:  12 February 2007**

This firmware release includes features of previous V60.13.0.# and V60.14.# releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097 |
| | This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important** • Before you attempt to download firmware version V60.14.X or later to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x or later versions.

## Changes

Support added for:
- The Wireless Plus option board for the 105*SL*, *PAX4* and *Xi*III*Plus* printers
- The Cisco™ CB21 802.11b/g card, when used with the Wireless Plus option board
- The optional 64MB A memory device on the new Wireless Plus option board for the 105*SL*, *PAX4*, and *Xi*III*Plus* series printers
- PEAP

- EAP-TLS
- EAP-TTLS
- EAP-FAST
- WPA PSK
- WPA2 PSK
- WPA PEAP
- WPA LEAP
- WPA EAP-TLS
- WPA EAP-TTLS
- WPA EAP-FAST
- Kerberos
- Wireless Set/Get/Do commands, allowing for configuration of wireless settings using Set/Get/Do command strings*
- New ZPL command – `^WX` – for configuring wireless securities*
- New ZPL command – `^KC` – for configuring the wireless client identifier*
- New ZPL command options for `~DY` – support `.PAC` files (protected access credential) and `.NRD` files (non readable)*
- New ZPL command options for `^WS` – support a wireless pulse (LSAP packet), wireless pulse interval, channel mask, and international mode*
- Extended SNMP support for use with a new management information base (MIB), allowing for control of printer settings using SNMP when using the Wireless Plus print server
- New LCD layout for Wireless Plus Print Server settings:**

| Previous LCD Layout | New LCD Layout |
|---|---|
| IP PROTOCOL | IP PROTOCOL |
| IP ADDRESS | IP ADDRESS |
| SUBNET MASK | SUBNET MASK |
| DEFAULT GATEWAY | DEFAULT GATEWAY |
| MAC ADDRESS | MAC ADDRESS |
| ESSID | ESSID |
| AUTH TYPE | WLAN SECURITY |
| LEAP MODE | WEP TYPE |
| ENCRYPTION MODE | WEP INDEX |
| ENCRYPTION INDEX | RESET NETWORK |
| RESET NETWORK | |

- New items displayed on the Network Configuration label:
  - Wireless Plus option board firmware
  - Channel Mask setting

- International Mode setting
- Wireless Pulse setting and rate
- Eight simultaneous connections for printing via wireless (raw port)
- Updating the Wireless Plus option board when printer firmware is updated. Users will see a `Downloading Firmware` message and status message for both the printer and Wireless Plus option board firmware downloads
- Updated Web pages (to support new wireless features)
- A Wireless Pulse feature, which sends a LSAP packet at a regular interval, has been added*
- The data LED now flashes in response to the receipt of data, not to the receipt of each wireless packet

*See the latest ZPL manual (available at www.zebra.com) for complete details on new commands.

**WEP TYPE and WEP INDEX only display when the WEP security type is used.

## Issues Corrected and Items Changed

- The hyphen character is now allowed in a UCC 128 Application Identifier number 240.
- IPP is not supported on the Wireless option boards.

### V60.15.2Z Supported Wireless Securities

From Table 4 select a wireless radio card that supports the security type being used on your WLAN.

**Table 4 • Security Types Supported by Different Wireless Radio Cards**

| Manufacturer | Cisco | | Symbol | |
|---|---|---|---|---|
| **Firmware/Products** | **V60.15.2Z: PAX4, XiIIIPlus, 105SL, Z4Mplus*** | | | |
| **Securities Supported** | **Cisco CB21 (CardBus)** | **Cisco 350 (PCMCIA)** | **LA-4121 (PCMCIA)** | **LA-4137 (Compact Flash)** |
| EAP-TLS | Yes | Not Supported | Not Supported | Not Supported |
| EAP-TTLS | Yes | Not Supported | Not Supported | Not Supported |
| EAP-FAST | Yes | Not Supported | Not Supported | Not Supported |
| PEAP | Yes | Not Supported | Not Supported | Not Supported |
| WPA- EAP-TLS | Yes | Yes | Not Supported | Not Supported |
| WPA- EAP-TTLS | Yes | Yes | Not Supported | Not Supported |
| WPA- EAP-FAST | Yes | Yes | Not Supported | Not Supported |
| WPA- PEAP | Yes | Yes | Not Supported | Not Supported |
| WPA - LEAP | Yes | Yes | Not Supported | Not Supported |
| WPA - PSK | Yes | Yes | Not Supported | Not Supported |
| WPA2 - PSK (no key rotation) | Yes | Not Supported | Not Supported | Not Supported |

\*   Z4M00-200X-0040 configurations only, where X = 1, 4, or E

**Table 4 • Security Types Supported by Different Wireless Radio Cards**

| Manufacturer | Cisco | | Symbol | |
|---|---|---|---|---|
| **Firmware/Products** | ***V60.15.2Z: PAX*4, *Xi*III*Plus*, 105*SL*, Z4Mplus\*** | | | |
| **Securities Supported** | **Cisco CB21 (CardBus)** | **Cisco 350 (PCMCIA)** | **LA-4121 (PCMCIA)** | **LA-4137 (Compact Flash)** |
| LEAP | Yes | Yes | Yes | Yes |
| WEP | Yes | Yes | Yes | Yes |
| Kerberos | Not Supported | Not Supported | Not Supported | Yes |

\* Z4M00-200*X*-0040 configurations only, where *X* = 1, 4, or E

# V60.14.5Z

**Release Date: 12 September 2006**

This firmware release includes all features of previous V60.13.0.# and V60.14.# releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

> **Important** • Before you attempt to download firmware version V60.14.X to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:
>
> • a Hardware ID of V06 or V07,
> • existing firmware version V40.10.1 and lower, or
> • a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x.

## Issues Corrected

- Resolved issue with partial batch of labels printing using USB.
- Resolved issue with graphics not printing when multiple `^GF` commands used in the same format.
- When the user sends the ~JN command and the printer encounters a head test failure, the printer will now go into pause and report `HEAD ELEMENT BAD` on the LCD. To clear the error, the user should either send a `~JO` command or power cycle the printer.
- Resolved issue where some label elements would not print when the `A` parameter in the `^PM` command was set to Y.
- Corrected issue where the umlaut was not appearing when the front panel was in German.
- The printer no longer hesitates between labels when the `^JM` command is used.
- Resolved issue where some characters were not printing when a character not present in a DAT was requested. To control what is printed if the character is not in the DAT table, the `^PAa` command should be used. Use the `^PA0` to print a space as default glyph and use `^PA1` to print the default glyph of a font. In some instances, this is sometimes a hollow box
- The range of the print head resistance, as seen on the control panel, a web page, or in the XML information, is now limited to the specific range of the printer model.
- If the printer encounters a data stream in which the data is alternating between single byte and double byte, the printer will note if the 2nd byte if not valid. At that point the printer will then disregard the 1st byte and start using the 2nd byte as the 1st byte.
- Resolved an issue in which the printer was reporting the WINS Server address incorrectly.
- Liner take-up tension on the Z4Mplus and Z6Mplus is now defaulted to 75%
- The Password Level feature has been added to the *XI*III*Plus* and *PAX*4 series control panels.
- The format prefix can be set to an ASCII character other than the ^ (HEX 5E) when using the autoexec.zpl feature.

# V60.14.x

| Firmware | Release Date | Page | Firmware | Release Date | Page |
|----------|--------------|------|----------|--------------|------|
| *V60.14.5Z* | 12 September 2006 | 42 | *V60.14.3ZA* | 31 March 2006 | 46 |
| *V60.14.3ZC* | 22 June 2006 | 44 | *V60.14.3Z* | 31 March 2006 | 47 |
| *V60.14.3ZB* | 23 May 2006 | 45 | | | |
| *Using Older Firmware on Newer Printers* | | | | | 50 |

## V60.14.3ZC

**Release Date:  22 June 2006**

This firmware release includes all features of previous V60.13.0.# and V60.14.# releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---------------|---------------------|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097 |
| | This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**!**

**Important** • Before you attempt to download firmware version V60.14.X to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x.

## Issues Corrected

- Resolved issue when mixing Tear-off and Cut modes in a batch print job.
- `^XB` can now be used when the printer is in Cutter mode.

# V60.14.3ZB

**Release Date:  23 May 2006**

This firmware release includes all features of previous V60.13.0.# and V60.14.# releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097 |
| | This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important** • Before you attempt to download firmware version V60.14.X to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have ANY of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x.

## Issues Corrected

- Implemented an updated driver file from Symbol to prevent possible connection issues with the 4137 Symbol Wireless Card.

# V60.14.3ZA

**Release Date: 31 March 2006**

This firmware release includes all features of previous V60.13.0.# and V60.14.# releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4*™ series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

**Important •** Effective 31 March 2006, Zebra will no longer offer ZBI functionality.

- After 31 March 2006, Zebra will no longer make, distribute, or support firmware with ZBI functionality on any new products. After 01 September 2006, all support for ZBI functionality on all products will end.
- Printers made after 31 March 2006 will no longer accept firmware created before 31 March 2006. Refer to *Using Older Firmware on Newer Printers* on page 50 for more information.

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

**Important •** Before you attempt to download firmware version V60.14.X to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have any of the following:

- a Hardware ID of V06 or V07,
- existing firmware version V40.10.1 and lower, or
- a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.

To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x.

**Note •** Zebra does not distribute the files necessary to change the Hardware ID on a printer.

## Issues Corrected

- Corrected Tear-Off adjust on 600 dpi printers to –120/+120 instead of -60/+120
- Corrected `^LT` 600 dpi printers to -120 to +120 instead of -60 to +60.
- Corrected an issue with the *PAX4™* series control panel. Previously, if accessed for any reason, the RTC would stop and simply print the time of the last update.
- Corrected an issue which caused 110XiIIIPlus printers to report `Invalid Head Element Out` on Configuration Labels and on the LCD Panel.
- Added missing control panel Mode Protection for the CALIBRATE button to the Configuration labels for the XiIIIPlus and *PAX4™* series printers. Other models do not have the control panel CALIBRATE button.
- Corrected Level Mode on *PAX4™* series printers. It now functions as it did with the *PAX3®*.
- Corrected Spanish and French spelling mistakes on printer LCD.
- Corrected an issue which could cause serialized data to print out of order.

# V60.14.3Z

**Release Date:  31 March 2006**

This firmware release includes all features of previous V60.13.0.# releases. It is for use with the following printer models:

- 110*Xi*III*Plus*™
- 140*Xi*III*Plus*™
- 170*Xi*III*Plus*™
- 220*Xi*III*Plus*™
- *PAX4™* series
- Z4Mplus™ with 4 MB of flash memory
- Z6Mplus™ with 4 MB of flash memory
- 105*SL*™ with 4 MB of flash memory

**!** **Important •** Effective 31 March 2006, Zebra will no longer offer ZBI functionality.

- After 31 March 2006, Zebra will no longer make, distribute, or support firmware with ZBI functionality on any new products. After 01 September 2006, all support for ZBI functionality on all products will end.
- Printers made after 31 March 2006 will no longer accept firmware created before 31 March 2006. Refer to *Using Older Firmware on Newer Printers* on page 50 for more information.

The firmware is not supported on 105*SL*, Z4Mplus, and Z6Mplus printers that have only 2MB of flash memory. Printers not eligible for this firmware include units in the following serial number ranges:

| Printer Model | Serial Number Range |
|---|---|
| Z4Mplus and Z6Mplus | 02C033800002 – 02C04070216 |
| 105*SL* | 105SL6400004 – 6457097<br>This range includes units with configurations 10500-0 and 10500-1. |

If this firmware is sent to an unsupported unit in the serial number ranges listed above, the printer will attempt to load the firmware, but will then display the message `Download Not Supported`. The printer will then be reset and return to using the firmware currently loaded on the unit.

> **Important** • Before you attempt to download firmware version V60.14.X to a 105*SL* printer, please note that this firmware version cannot be used in 105*SL* printers that have any of the following:
>
> • a Hardware ID of V06 or V07,
> • existing firmware version V40.10.1 and lower, or
> • a configurator number beginning with 105xx-0xxx-xxx or 105xx-1xxx-xxxx.
>
> To determine your printer's Hardware ID and firmware version, locate `HARDWARE ID` and `FIRMWARE` on the configuration label. To print a configuration label, have the printer loaded and ready to print. Press and hold the CANCEL button while turning on the printer. Release the button after approximately three seconds. If the `HARDWARE ID` shows versions V06 or V07 (found on some older 105*SL* models), please contact Zebra Technical Support at www.zebra.com/support for information on upgrading to V60.14.x.

> **Note** • Zebra does not distribute the files necessary to change the Hardware ID on a printer.

> **Important** • Downgrading V60.14.3Z firmware below V60.13.0.9 firmware will cause the contents of E: memory to be lost and will require contents of E: memory to re-downloaded to the printer

## New Features

This firmware release provides support for the Symbol LA-4137-1020-WW Compact Flash Wireless Radio Card. The Compact Flash Wireless Card (CF card) is a replacement for discontinued Wireless cards. When using the new Symbol CF card, you must use a PCMCIA to Compact Flash adapter.

> **Note** • All other supported Wireless cards do not require this adapter.

When upgrading to this new firmware, the wireless network settings on the printer may be set to the factory default settings. We recommend resetting the wireless settings on your printer after upgrading the firmware. The wireless settings can be sent to the printer using the SetWLAN utility that came with the Wireless Print Server or with our Printer Management utility, ZebraNet Bridge. Both utilities are available for download at our web site.

Zebra's Global Printing Solution with Unicode™ encoding allows most of the world's languages, including Arabic and Asian characters, to be printed without needing to develop the unique code pages for each language or slow label processing. Maximum printing performance can be achieved without language-specific code page development, label design, font licensing, or modification of business applications for different languages. It is now possible to design one label format, printing on one printer model, from one version of your business application software that can be used around the world.

### Supported Scripts

| | | | |
|---|---|---|---|
| • Arabic | • Devanagari | • Hangul | • Katakana |
| • Bopomofo | • Greek | • Hebrew | • Latin |
| • Cyrillic | • Han | • Hiragana | • Thai |

### Supported Encodings

| | | | |
|---|---|---|---|
| • ASCII | • Johab | • UTF-8 | • Code Page 1252 |
| • Shift-JIS | • UHangul | • UTF-16 | • GB 18030 |
| • JIS | • GB2312 | • UCS-2 | • Big 5 HKSCS |
| • Wansung | • BIG5 | • Code Page 850 | • Code Page 874 |

### Supported Languages

| | | | |
|---|---|---|---|
| • Albanian | • Estonian | • Italian | • Serbian |
| • Arabic | • Farsi | • Japanese | • Slovak |
| • Azerbaijani | • Finnish | • Kazakh | • Slovene |
| • Bulgarian | • French | • Malay | • Spanish |
| • Chinese (Traditional) | • German | • Moldavian | • Swedish |
| • Chinese (Simplified) | • Greek | • Korean | • Tajik |
| • Croatian | • Hebrew | • Norwegian | • Thai |
| • Czech | • Hindi | • Polish | • Turkish |
| • Danish | • Hungarian | • Portuguese | • Ukrainian |
| • Dutch | • Icelandic | • Romanian | • Urdu |
| • English | • Indonesian | • Russian | • Vietnamese |

## Issues Corrected

- Several incorrect characters on the French Configuration Label were corrected.
- Corrected issue with Data Matrix Barcode not printing if the letter 'A' is in the data field.
- Issue has been corrected which caused CI6 to print in Font 0 instead of a downloaded font.

## New ZPL Commands

- `^FL` - Font Linking
- `^HT` - Host Linked Fonts List
- `^LF` - List Font Links
- `^PA` - Advanced Text Properties
- `^TB` - Text Block

See the latest ZPL manual (available at www.zebra.com/manuals) for complete details on new commands.

# Using Older Firmware on Newer Printers

Effective 31 March 2006, Zebra will no longer offer ZBI functionality. After 31 March 2006, Zebra will no longer make, distribute, or support firmware with ZBI functionality on any new products. Printers made after 31 March 2006 will no longer accept firmware created before March 31st 2006. After 01 September 2006, all support for ZBI functionality on all products will end.

When firmware released prior to 31 March 2006 is downloaded to a printer manufactured after that date, the printer will remain in DOWNLOAD MODE until the appropriate updated firmware is downloaded to the unit. Updated firmware is available at www.zebra.com/firmware. The functionality and version numbers of the updated firmware are unchanged.

Printers manufactured after 31 March 2006 can be identified in the following way:

| Printer Model | Serial Numbers Above: | Hardware ID* |
|---|---|---|
| 110*Xi*III*Plus*™ 203/300/600 dpi | 91C06150075 | V34 |
| 140*Xi*III*Plus*™ 203 dpi | 8592452 | V34 |
| 170*Xi*III*Plus*™ 203/300 dpi | 7078373 | V34 |
| 220*Xi*III*Plus*™ 203/300 dpi | 2058243 | V34 |
| Z4Mplus™ 203/300 dpi | 02C06150517 | V34 |
| Z6Mplus™ 203/300 dpi | 02C06150517 | V34 |
| 105*SL*™ 203/300 dpi | 6512869 | V34 |
| 110*PAX*4™ 203/300 dpi | 04C06150014 | V34 |
| 170*PAX*4™ 203/300 dpi | 05C06150012 | V34 |

* To locate your printer's Hardware ID, print a configuration label.

For support, please visit www.zebra.com/support or refer to the contact options below:

| Geographic Location | Telephone | Toll-free | FAX |
|---|---|---|---|
| **The Americas** | +1-847-955-2299 | +1-877-ASK-ZEBRA | — |
| **Asia Pacific** | +65-6858-0722 | — | +65 6885 0838 |
| **Europe, Africa, Middle East, India** | Please contact your supplier. | | |