



ZSP1027B Summary of Firmware Changes

Release Date: 31 March 2006

This firmware release provides enhanced XML versioning, logging features, and improved GEN2 locking. It includes all features of previous ZSP1027x releases. It is for use with the following printer models:

- R4Mplus



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 3](#) for more information.

New Features and Issues Corrected

- Password protected: Power, Tag Type, and Tag Calibrate on front panel.
- Void and Valid label counters now appear on front panel, and can be reset via the right arrow button (w/ correct password).
- Program position now shows up at front of RFID Slow test; the timing has been improved here as well to make viewing better.
- When **RESTORE** is pressed from tag calibrate, there is an acknowledgement **RFID PROGRAM POSITION RESTORED!**
- Eliminated auto calibration on **LOAD DEFAULTS**.
- RFID data logging; always on, use **~HL** or **^HL** to retrieve and clear.
- Gen2 locking improvements: improved error handling (exceptions)
- If password is not 8 characters (hex) an error is generated
- Re-sync with .13ZA firmware (Remington out of sync issue) also Wireless fix / support for Symbol Compact Flash wireless.
- XML versioning.

New ZPL Commands

- **~HL** – Font Log
- **^HL** – Host Log
- **^RFP** – **^RF** is not new. The 'P' operation was added (all the existing ones, such as R, W, and L are unchanged). If the operation is “P”, we can know to use the letter representation.



Note • For Gen2 tags, the operation “L” is not used

Sample Logging

The printer is always logging RFID data. When the user sends either a ~HL or ^HL, the printer will return a log to the host. The data returned represents the status of the RFID read and write commands and shows any respective error codes (see appendix for error codes).

When a machine is powered on, the log is empty. Sending ~HL will return the following:

```
<STX><start>
<end><ETX>
```

The log, after RFID commands have been issued, will have the following format:

```
<STX><start>
C,EEEE,DDDDDDDDDDDDDDDDDDDDDDDDDDDDDD
.
.
.
<end><ETX>
```

C= Operation (R=Read, W=Write, L=Lock)
EEEE = Error code (see appendix for error codes)
DDDDDDDDDDDDDDDDDDDDDDDDDDDDDD = Data read or written

For example:

```
<STX><start>
W,0000,54888
W,0000,12345
W,0000,54888
W,0000,12345
W,0000,54888
W,0000,12345
W,0000,54888
W,0000,54888
W,0000,54888
W,0000,54888
<end><ETX>
```

Above shows nine write operations, the associated error status, and data written. The data is in the format sent by the ^RFW command. The data will either be in ASCII, Hex or EPC format.

Sending ~HL or ^HL will send the RFID log to the host. It will also clear the log and start logging new data.

The internal buffer that contains the data log is 64K in size. If the log goes beyond this size (~2000 operations), the log will clear itself, and restart recording automatically. If the log does automatically clear itself, the user will see this in the log:

```
<STX><start>
E,FFFF,Logfile automatically reset
W,0000,54888
W,0000,12345
W,0000,54888
W,0000,12345
W,0000,54888
W,0000,54888
W,0000,54888
W,0000,54888
W,0000,54888
W,0000,54888
<end><ETX>
```

The data log is stored in RAM, so if power is lost, you will lose the log. If the results are important, it's recommend to frequently retrieve/clear the log.

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*
R4Mplus™ 203 dpi	02C06150517	V34

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

For support, please visit www.zebra.com/support or reference the contact options below

Geographic Location	Telephone	Toll-free	FAX
The Americas	+1-847-793-5585	+1-866-515-2485	—
Asia Pacific	+65-6858-0722	—	+65 6885 0838
Europe, Africa, Middle East, India	Please contact your supplier.		