# ZebraNet II Print Server Firmware – V7.06 (0264A)

## \*IMPORTANT NOTICE\*

Failure to follow the instructions below may cause the firmware to be corrupted.

While downloading new firmware to the Print Server, no other data should be sent to the printer during the downloading process. The unit will be temporarily unavailable for print jobs during the firmware download process.

To begin, power on the printer and wait (for up to one minute) to complete the Print Server boot sequence. The boot sequence is complete when the LED on the Print Server turns GREEN.

If the Print Server LED is slowly flashing GREEN, the unit is printing a configuration label or a print job. You must wait until the LED is no longer flashing before proceeding with the firmware download. Please note that the LED will flash red/green once the unit is in firmware download mode.

If the LED on the Print Server is rapidly flashing green, the Print Server has not detected the presence of a network cable. Consult the troubleshooting section of the Print Server manual for additional information.

To install the new firmware updates using TCP/IP and ZebraNet Bridge:

- 1. Turn on printer and wait for print server to receive an IP address
- 2. Open ZebraNet Bridge

| Contents Events      | Status   Summary   Visual Alerts  <br>  Value | Maintenance |  |
|----------------------|---|-------------|--|
| Contents Events Name | Status   Summary   Visual Alerts  <br>  Value | Maintenance |  |
| Contents Events      | Status Summary Visual Alerts Value            | Maintenance |  |
| Name                 | Value   |             |  |
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3. Right click on Groups and select New  $\rightarrow$  Printer

4. In the Add Printer Wizard window select Network [IP Address] and then click Next.



5. Type in the printer's IP address and click Finish

| Add Printer Wizard  |
|---|
| This wizard assists in manual addition of printers.<br>Enter Network Information  |
| IP Address: 10.3.5.94<br>Select Printserver Type<br>© ZebraNet Wired and Wireless<br>© Mobile-802.11b<br>Port Number: 9100<br>SNMP Settings |
| < <u>B</u> ack <u>N</u> ext > <b>Einish</b> Cancel  |

6. Select the printer that was just added in the Group Management Window.

| CebraNet Bridge Enterprise   |   |         |
|--|---|---------|
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| Search Groups 🔬  | Contents Events Status Summary Visual Alerts Maintenance  |         |
|  | Quick Status     Detailed State       Refreshi     Last Refresh: 10/12/10 1:02 PM       Parameter     Value       Product Number     46688  | v Value |
| Group Management<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Groups<br>Gr | Product Name         ZebraNet PrintServer           Datecode         9212A           F/W Version         1.01.7           H/W Address         00074d2d4e84           Serial Number         296920           Using Net Protocol         TRUE           IP Address         10.3.5.94           Subnet Mask         255.255.255.0           Default Gateway         10.3.5.1           System Name         ZBR2969220           Port Status         Online           Port Name         Vertice |         |
| Resource Management  resources files firmware fonts graphics eud2PL Profile Management  Profiles   | Port Status Refresh Printer Port Remote IP:Port Status  |         |
| System Ready   |   |         |

- 7. Select the Status tab.
- 8. Click the Refresh button in the Quick Status box.
- 9. Note the Product Number that is listed for that print server. In the example below, the Draduct Number is 46628. Your print server mean at the number 46626 or 46627.



10. Ensure that both the \*.1 and the \*.IP files that match the Product Number noted in the previous step are saved in the same folder on your computer.

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| Groups     Group   |            | File Edit View Fa  | avorites Tools Help                          |   |
|  |            | Generation → | 🏂 🔎 Search 🄀 Folders 📔                       | \$ \$\$ <mark>× \$</mark>   |
|  |            | Name 46688.IP  | Size Type<br>280 KB IP File<br>539 KB 1 File | Date Modified 7/31/2009 5:04 PM<br>7/31/2009 5:04 PM<br>7/31/2009 5:04 PM |
| Resource Management  |            |  |  |   |
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| Profile Management  Profiles   |            |  |  |   |
| System Ready   |            | 2 objects (Disk free space   | e: 61.5 GB)                                  | 817 KB 😼 My Computer  |

11. Drag and drop the \*.1 file onto the printer in the Group Management window.

12. Click Yes in the Printserver Firmware Download window.

| Printserver Firmware Download  |                               | × |
|--|-------------------------------|---|
| Caution: Downloading incompatible Printserver<br>Printserver in an unusable state. | firmware may leave your       |   |
| Download D:\Print Servers\Customer Issues\St<br>Printserver?                       | aples\FirmwareFix\46688.1 to: |   |
| (  | Yes No                        |   |

# 13. Click File→Show Task List

| ask List                              |        | ×  |
|---------------------------------------|--------|----|
| Downloading PS Firmware to: 10.3.5.94 | Cancel | 4  |
|                                       |        |    |
|                                       |        |    |
|                                       | Þ      |    |
| Auto open when a task is added        | Clean  | up |

14. Wait for the Downloading PS Firmware to: x.x.x.x task to complete

| ask List                              | ×        |
|---------------------------------------|----------|
| Downloading PS Firmware to: 10.3.5.94 |          |
| Operation Complete                    | Details  |
|                                       |          |
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| <b>I</b>                              |          |
| Auto open when a task is added        | Clean up |

15. Click Refresh on the Quick Status box of the Status tab. Verify that the firmware has been updated to the new version by checking the F/W Version number.

### TROUBLESHOOTING

Note: A communications configuration has been added to the ZebraNet Print Server II firmware that must be properly defined to work correctly with the Zebra printer. This feature allows you to disable the bi-directional communications on the printserver for printer compatibility. If your

printer has ZebraLink capabilities (ZBI, ZebraNet Alert or ZebraNet Webview), no changes to the default settings are required. If your printer does not have ZebraLink capabilities, please refer to the section below which describes controlling bi-directional communications.

# CONTROLLING BI-DIRECTIONAL COMMUNICATION

Printers using firmware x.10.x or later have bi-directional capabilities and can support the default setting. Refer to the configuration label or the LCD front panel to determine your firmware version. (For example 33.10.4 is a firmware version used in the XiIII printer where the 10 relates to the feature level.) For version 10 or later, leave bi-directional communication enabled. For all earlier versions you must disable bi-directional communications.

From the Browser:

Note:Printers with firmware earlier than X.10 will show the Print Server page first - go to step 2.

- 1) Enter the IP addres of the printer in your browser
- 2) When the page displays, select "Print Server Settings".
- 3) Under "Status and Configuration" select "Print Server".
- 4) If user name and password are needed, type "admin" for user name and "1234" (without quotes) for password. Click OK
- 5) Under "Print Server Configuration" select "Output Port Configuration".
- 6) Next to "Bi-Directional Communication" you will see a drop down box. Select "Disabled" and then click on "Submit Changes". A screen will appear saying "Configuration Successfully Set".
- 7) A link stating that "The unit must be reset for new values to take effect" will be displayed. Click the link.
- 8) A "Yes" button will display. Click the button. The unit will now be reset. This will take up to one minute. The unit will be unavailable during the system reset.

Telnet Session:

- 1) Telnet to printer. The "ZebraNet PrintServer Configuration Utility" will appear.
- 2) Enter 1234 for password. Hit enter.
- 3) Under "ZebraNet PrintServer Configuration Utility" select 6 for "Configure port". Hit Enter.
- 4) Under "Configure port" select 3 for "Configure bi-directional communication." Hit Enter.
- 5) Under "Indicate whether bi-directional communication should be enabled" select 2 for "Disabled". Hit Enter twice. This will take you back to the "ZebraNet PrintServer Configuration Utility" screen. Hit Enter again to quit.
- 6) When asked to save changes select Y (for yes), then hit Enter. The unit will now be reset. This will take up to one minute. The unit will be unavailable during the system reset.

# CHANGELOG

7.06 (0264A)

• Addressed issue with out of order packets not being handled properly.

7.05 (9034A)

• Addressed issue with PrintServerII (PSII) sporadically printing labels with lost or misprinted data

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7.04 (Z453A)

• Fixed SNMP trigger of the config label

7.02 (3111)

- Allowed broadcast to UPD port 0.
- Altered EPL config label for use with 300 dpi units.
- Unit no longer prints a configuration label when it first receives an address via dynamic addressing.
- Unit no longer prints a configuration label when it experiences a "cable not connected" error during POST.
- When "Default Address" is unchecked the unit will continuously cycle through the selected boot protocols attempting to obtain an IP address from an IP address server. After two minutes of continuously searching for an IP address the unit will continue to search for an IP address, randomly varying the amount of time between attempts.

7.01 (2108)

- Changed EPL of the Z-Net config label format so that it prints on a 2" wide label.
- Removed 'D' (density), 'S' (speed), and 'Q' (label length and gap value)commands from the EPL version of the config label. This should allow for compatibility across a wider range of printer
- configurations.
- Fixed case where the ZPL version of the Z-Net config label would fail to print when the printer's default format character('^'), control character('~') or delimiter character (',') had been changed. The print server now uses the same internal representation of those characters that the printer uses.
- The datecode format was changed to "YDDD":
  - $\circ$  "Y" is last digit of the year (0=2000 ... 9=2009)
  - "DDD" is the day of the year (1=Jan 01 .. 365=Dec 31 [366 in leap years])
  - This is similar to the v6.xx firmware series datecode, which had "Y" being in the range (0=1990 .. A=2000).

• The default IP address was changed to 192.168.254.254 to place it in the unroutable private network block.

<sup>7.00 (1</sup>A02)

- Fixed problem where a ZebraNet II configured with a restrictive subnet mask would not route properly to a different subnet. Example, ZebraNet II at address 192.168.1.5 with subnet mask of 255.255.255.192 can now route to 192.168.2.5.
- Fixed problem with sockets closing prematurely (before the connection is established) becoming unusable and not returning to the "listen" state.
- Fixed a problem with buffer overflow in the HTTP server. This caused the print server to crash when sent HTTP requests longer than 255 characters (such as a probe by the Code Red worm).
- Fixed a problem with connections closed improperly from the remote end staying open on the print server and tying up resources.
- Fixed a problem with the recognition of broadcast IP addresses in the presence of nonstandard subnets.
- Relaxed IP address checks to allow the value "255" to be used in any octet.
- The datecode format was changed to "YMDD". Each field is represented by hexadecimal digits:
  - "Y" is the year (0=2000 .. E=2014)
  - "M" is the month (1=Jan .. D=Dec)
  - $\circ$  "DD" is the day (1=1 ... 1F=31)
- A single character tracking code was added to the datecode. This datecode for this release, 1A02A, corresponds to October 2, 2001 (2001-10-02) with tracking code "A" added.

# 6.40.09 (A242)

• Fixed problem with subnetted addresses where a valid host address on a different subnet would incorrectly be treated as a broadcast packet on our subnet.

### -----6.40.08 (A331)

• Fixed problem with sockets closed prematurely (before the connection is fully established) becoming unusable rather than returning to the "listen" state.

#### -----6.40.07 (A220)

- Fixed a buffer overflow problem in the HTTP server which caused the print server to crash when probed by the Code Red worm.
- Fixed a problem with connections closed improperly from the remote end staying open on the print server and tying up resources.

### -----6.40.06 (A200)

• Fixed the recognition of broadcast IP addresses in the presence of non-standard subnets.

# 6.40.05 (A113)

• Relaxed IP address checks to allow the value "255" to be used in any octet.

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