Kiosk TTP 2000 Firmware Version 4.01

Summary of TTP 2000 Firmware Version 4.01 Changes

Release date: 29 July 2014

Supported Printer Firmware

This firmware release includes the features of the previous Kiosk firmware releases for the TTP 2000 series printers.

Supported Printers

TTP 2000 Firmware version 4.01 is for use with the following Kiosk printer models:

> TTP 2010
> TTP 2020
> TTP 2030

New Features

The features described below can be enabled by setting parameters using the Zebra Toolbox utility.

Auto cal on paper load

The printer can now automatically measure the black mark blackness, size of mark, and ticket length on media loading. This is helpful should you have media where the mark varies from roll to roll or if you use for example bag tag media of different lengths in one and the same printer. This function is disabled by default and can be enabled by setting bit 2 of parameter 64 to 0.

USB Port Independence (Hot Swap Capability)

When this mode is activated and after the printer is plugged in the first time creating the initial printer instance, the printer can be plugged into any USB port on the host computer without triggering an additional printer instance. The default mode of this firmware is port dependent so that more than one TTP 2030 can be connected to the host computer.

To enable USB port independent (hot swap) behavior, set parameter 64 bit 6 = 0.

USB Auto Recovery

In addition to the master USB recovery setting in bit 4 of parameter 57, more recovery methods can now be selected from parameter 64:

1. *USB Reset after 15 seconds (of inactivity)*
   With this activated and the printer not receiving data within 15 seconds, it will simulate unplugging / plugging in the USB cable. The function is disabled by default and enabled by setting parameter 64 bit 4 = 0. The custom application must ask for status every 15 seconds or less for this function to work.

2. *USB reset on error*
   If the USB interface in the printer detects CRC or bit stuffing error it will simulate unplugging / plugging in the USB cable. This function is disabled by default and enabled by setting parameter 64 bit 5 = 0.

Exit-guide Jiggle Option

By default the printer jiggles the exit-guide when ejecting a printout to shake it off so it falls from the printer. This function can now be disabled by setting parameter 64 bit 3 = 0.

Issues Corrected

- Resolved issue when parameter 49 Advance before Cut does not work.
- Resolved issue when printer cuts less than minimum page length of 70 mm.
- Resolved issue when presenter motor is not powered off in some idling states.
- Resolved motor stall issue.

Known Issues

- None

Upgrading Printers with Earlier Firmware

This instruction describes how to upgrade printers delivered with firmware versions earlier than version 1898-xxx and 1899-xxx.

Notes: 1D and 2D barcodes in the same firmware
Firmware version 1896-xxx and 1897-xxx combine 1D and 2D barcodes into one FW file. This firmware file is larger in size than the 1814-xxx and 1818-xxx, and therefore can only be loaded on printers with larger memory chips on the controller board. Take note of the serial numbers in the table on page 3 to verify if the printer can accept the larger firmware file.

The 1896-xxx and 1897-xxx versions support Aztec, and PDF 417 barcodes in addition to the EAN8, EAN13, UPC, 2of5 interleaved, ISBN, Code 39, Code 128 that firmware 1814-xxx and 1818-xxx support.

Important: Installing the firmware version that combines 1D and 2D barcodes into one file requires additional steps because the Flash PROM is being remapped to take advantage of a larger memory size in newer printers. During this process, all fonts and logos will be erased. Factory logo and fonts are included in the firmware zip file and available in Toolbox software version 1.70, both downloadable from zebra.com. If you have customized logos and/or fonts, make sure you have copies of these files in the proper printer format before updating the firmware.

	Firmware version for 1D barcodes only	**Firmware version for 1D and 2D barcodes**
TTP 2010	**1818-401** Installs on all versions of the printer	**1897-401** Installs on printers with: 1. Serial number greater than 5-0910-07126 2. Serial number starting with 90J
TTP 2020	**1814-401** Installs on all versions of the printer	**1896-401** Installs on printers with: 1. Serial number greater than 5-0844-00378 2. Serial number starting with 90J
TTP 2030	**1814-401** Installs on all versions of the printer	**1896-401** Installs on printers with: 1. Serial number greater than 5-0844-00378 2. Serial number starting with 90J

Upgrade Overview

This overview is for users who know Toolbox and how to stop and start the spooler in the Windows version of the host computer. Detailed instructions start on the next page.

Upgrading a printer to version 4.01 and factory defaults

1. Stop the spooler.

2. Start Toolbox 1.70 and make sure it communicates with the printer.

3. Upload 1D firmware 1814-401 to the TTP 2020 or TTP 2030, and 1818-401 to the TTP 2010.

4. Upload 1D+2D firmware 1896-401 to the TTP 2020 or TTP 2030, and 1897-401 to the TTP 2010.

5. If step 4 fails, the printer has too small a memory to use the combined 1D and 2D firmware and cannot upgrade beyond the 1814/1818-401. Skip ahead to step 8. (Failure to load shows as checksum error = constant 5 Hz blinking and no change when you hold the Feed button.)

6. Upload Zebra logo to the printer.

7. Upload fonts ATM9 14, ATM9 14 Bold, and TTP Mono 7H to the printer, in that order.

8. Set all parameter values to default and save the parameters by sending <ESC>&F<ESC>&<4> to the printer.

9. Print a self test and verify that everything is OK.

10. Repeat steps 2 to 9 for any other printers until you are done.

11. Close Toolbox and start the spooler again.

Firmware Installation, Comprehensive Description

Firmware is loaded to the printer using the Zebra Toolbox utility software version 1.70. If a previous version of Toolbox is installed, download the latest version from the Zebra website and install. The installation process will uninstall the older version of Toolbox.

Notes: These instructions will use the firmware, fonts, and logo installed with Toolbox software. If Toolbox version 1.70 is already installed, one can download the firmware files from the Zebra website. Firmware files are located on www.zebra.com under Support and Downloads, select TTP 2000 Kiosk Printer, Firmware & Service Packs. Another option is to update the latest firmware, fonts and logos to the latest version from within Toolbox. Under the Help menu, select Updates and Packages. Highlight one of the selections and select Install the Selected Package. When the first one is complete, select the other package to install.

Step 1. Retrieve the Toolbox software from the Zebra website:

- Go to www.zebra.com.
- Select Support and Downloads.
- Under Printer Support select TTP 2000 Kiosk Printer from printer drop down list.
- Select Software Utilities.
- Select the Kiosk Printer Toolbox and download[1] to your computer to a known location. The software file is a self extracting zip file. Run the executable to extract the contents to the computer.
- Run the Toolbox-setup-1-7.exe program and follow the prompts to install the software.
- After the Toolbox software has been successfully installed, run Install KPL Font Package 1.0.4.exe program to install the Zebra fonts and logos into Toolbox.
- Run Install KPL Firmware Package 1.0.8.exe program to install the latest Zebra firmware into Toolbox.

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[1] You need to register for a password if you don't already have one.

Step 2. Install the firmware

- These procedures assume the printer is at firmware version 3.55 or later before beginning upgrade procedure. Consult the table for the correct version of firmware allowed for the printer.

	Firmware version for 1D barcodes only	**Firmware version for 1D and 2D barcodes**
TTP 2010	**1818-401** Installs on all versions of the printer	**1897-401** Installs on printers with: 1. Serial number greater than 5-0910-07126 2. Serial number starting with 90J
TTP 2020	**1814-401** Installs on all versions of the printer	**1896-401** Installs on printers with: 1. Serial number greater than 5-0844-00378 2. Serial number starting with 90J
TTP 2030	**1814-401** Installs on all versions of the printer	**1896-401** Installs on printers with: 1. Serial number greater than 5-0844-00378 2. Serial number starting with 90J

Note: "1D" firmware must always be installed before installing "1D and 2D" firmware!

Installation procedures for 1814-401 and 1818-401

- Before running Toolbox software, it is recommended to disable the print spooler.

  1. In Win XP and Vista, under the Start menu, select Run, type "cmd" and select OK.

  2. In Win 7 and 8:

     a. Click on the Windows orb (Start) in the bottom left of the computer screen. Type "cmd" into the Search window.

     b. In the results window, right click on the command prompt icon and select "Run as Administrator".

  3. At the cursor in the command prompt window, type "net stop spooler", <Enter>. Leave this window open as the print spooler will need to be restarted at the end of these instructions.

- Start Toolbox and connect the printer to host computer. Power on the printer and load media.

- Select Detect icon for the software to configure for the correct printer. Select the proper media width when prompted.

- Select Upload and the Upload file dialog box will appear.
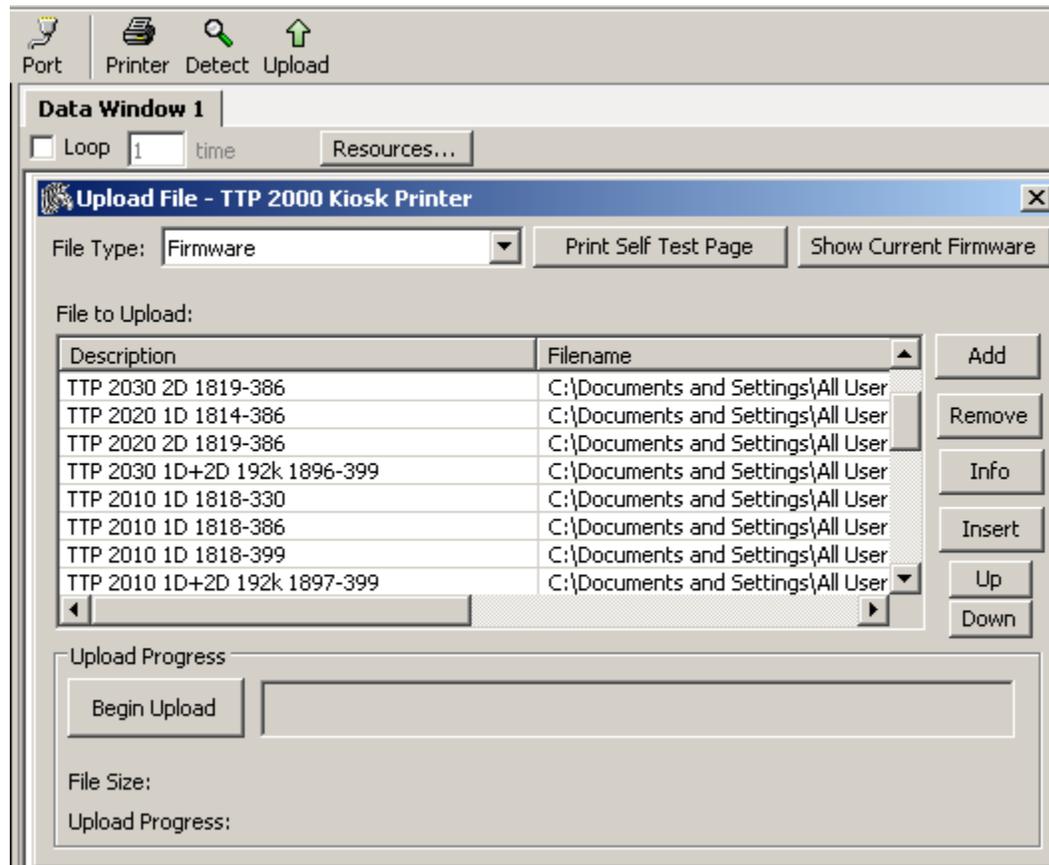
- Select Print Self Test Page to print a receipt with the current parameter settings.
- Select the 1D-firmware appropriate for the printer you are upgrading from the File to Upload list. (Should the file you look for not be in the list, select Add and browse to the file location for the firmware file you downloaded, write a description, and select OK.)
- Select Begin Upload. The status light on the printer will flash rapidly when the firmware is being written to the Flash PROM[2]. Wait until you hear the presenter motor click before selecting OK in the popup window. The sound will signify the file is written properly.
- Select Print Self Test Page to print a receipt with the new parameter settings and verify the firmware version. If any settings need to be changed, refer to the Changing parameter settings section for instructions.
- Close Toolbox software and enable the print spooler.
- Go to the command prompt window. Type "net start spooler", <Enter>. To close the window, type "exit".

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[2] Powering off the printer at this stage will leave the printer inoperable

Installation procedures for 1896-401 and 1897-401

Notes: Installing this firmware requires additional steps because the Flash PROM is being remapped to take advantage of a larger memory size. During this process, all fonts and logos will be erased. Factory logo and fonts are included in the Toolbox software. If you have custom logos and/or fonts, make sure you have copies of these files in the proper format before beginning this step.

- First install 1814-401 or 1818-401 firmware following the procedure above but skip the last step to keep Toolbox running and the spooler disabled.

- Select the appropriate 189x-401 firmware from the File to Upload list. (Should the file you look for not be in the list, select Add and browse to the file location for the firmware file you downloaded, write a description, and select OK.)

- Select Begin Upload. The status light on the printer will flash rapidly when the firmware is being written to the Flash PROM[2]. Wait until you hear the presenter motor click before selecting OK in the popup window. The sound will signify the file is written properly.

- In the Upload File dialog box, change the File Type to Logotype.
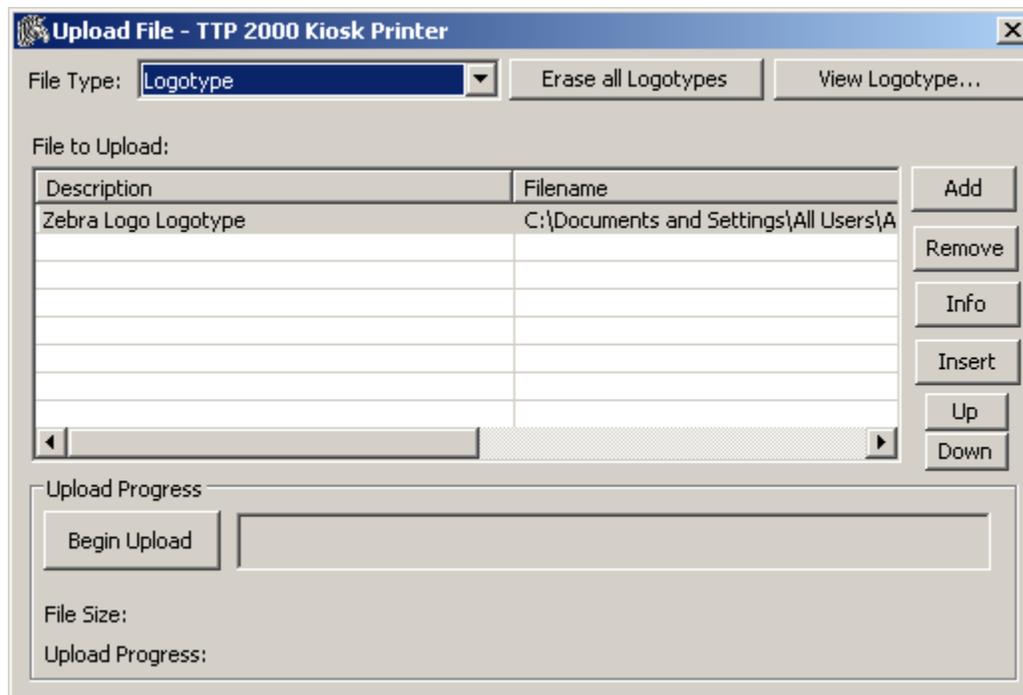
- Select "Zebra Logo Logotype" and click "Begin Upload". The status light on the printer will flash rapidly when the logotype is being written to the Flash PROM. Wait

until you hear the presenter motor click before selecting OK in the popup window. The sound will signify the file is written properly.

- If any other logos need to be added:

    1. Select Add and browse to the file location for the logo. Name the file and select OK.

    2. Begin Upload, following the instructions in the step above.

    3. Repeat the process until all logos are loaded in the proper order.

- In the Upload File dialog box, change the File Type to Font.
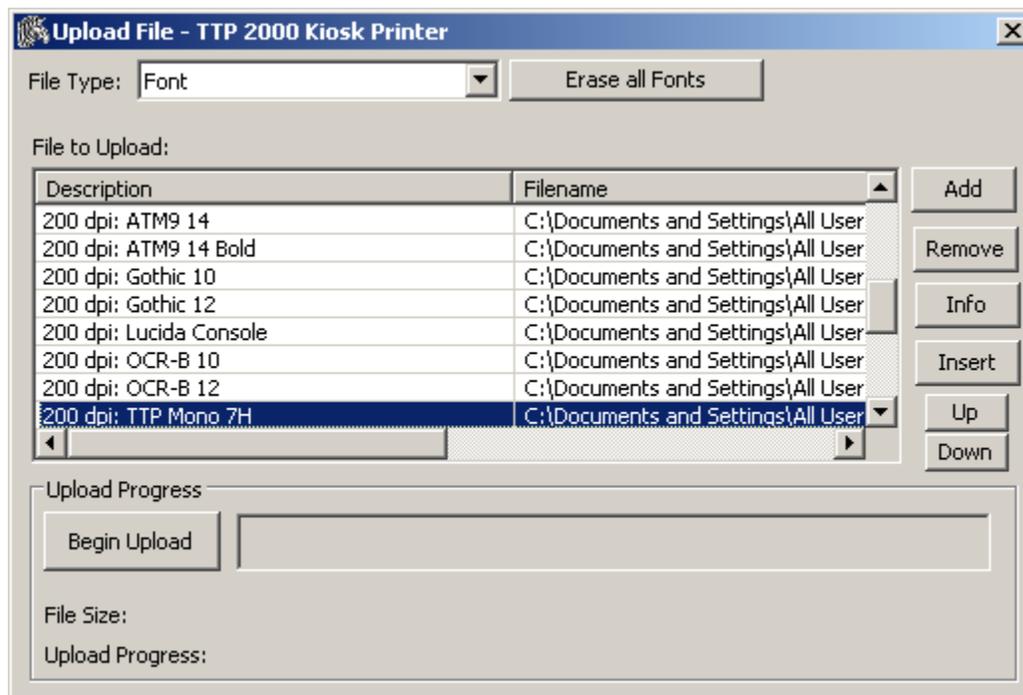
- The Zebra fonts are already included with Toolbox.

**It is important to pick the fonts in the right order:**

1. Select 200 dpi: ATM9 14. Select Begin Upload. The status light on the printer will flash rapidly when the firmware is being written to the Flash PROM. Wait until you hear the presenter motor click before selecting OK in the popup window. The sound will signify the file is written properly.

2. Select 200 dpi: ATM9 14 Bold and Upload.

3. Select 200 dpi: TTP Mono 7H and Upload.

If any other fonts need to be added:

1. Select Add and browse to the file location for the font. Name the file and select OK.

2. Begin Upload, following the instructions in the step above.

3. Repeat the process until all fonts are loaded in the proper order.

- Hold the feed button on the printer pressed for two seconds to print a receipt with the new parameter settings and verify the firmware version. If any settings need to be changed, refer to the <u>Changing parameter settings</u> section for instructions.

- Close Toolbox software and enable the print spooler.

1. Go to the command prompt window. Type "net start spooler", <Enter>. To close the window, type "exit".

Changing parameter settings of the printer

- Stop the spooler and start Toolbox as described on page 7.

- Under the Tools heading, select Parameter Settings and a dialog box will appear.

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Tools  Window  Help
  Upload File to Printer...
  Capture File from Printer...
  Boot Loading and Calibration...
  Graphics Conversion...
  Launch Font Editor

  Print Graphic Test Slip        F6
  Print Grey Test Slip           F7
  Print Self Test Page           F8

  Parameter Settings...
  Status Enquiry (ENQ)...
  Poll Printer Status...
  USB Device Report...

  Clear Recent Files List
  Convert Numbers...
  Options...                     F11
```
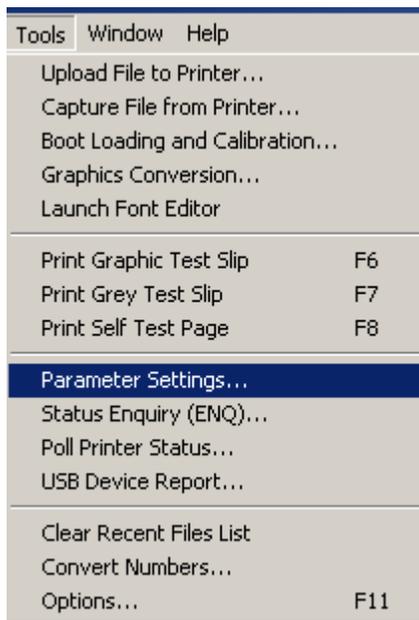
- Make sure the bottom bar is highlighted in green to ensure the printer parameters are properly read from the printer. If not green, select "Retrieve All" to retry.
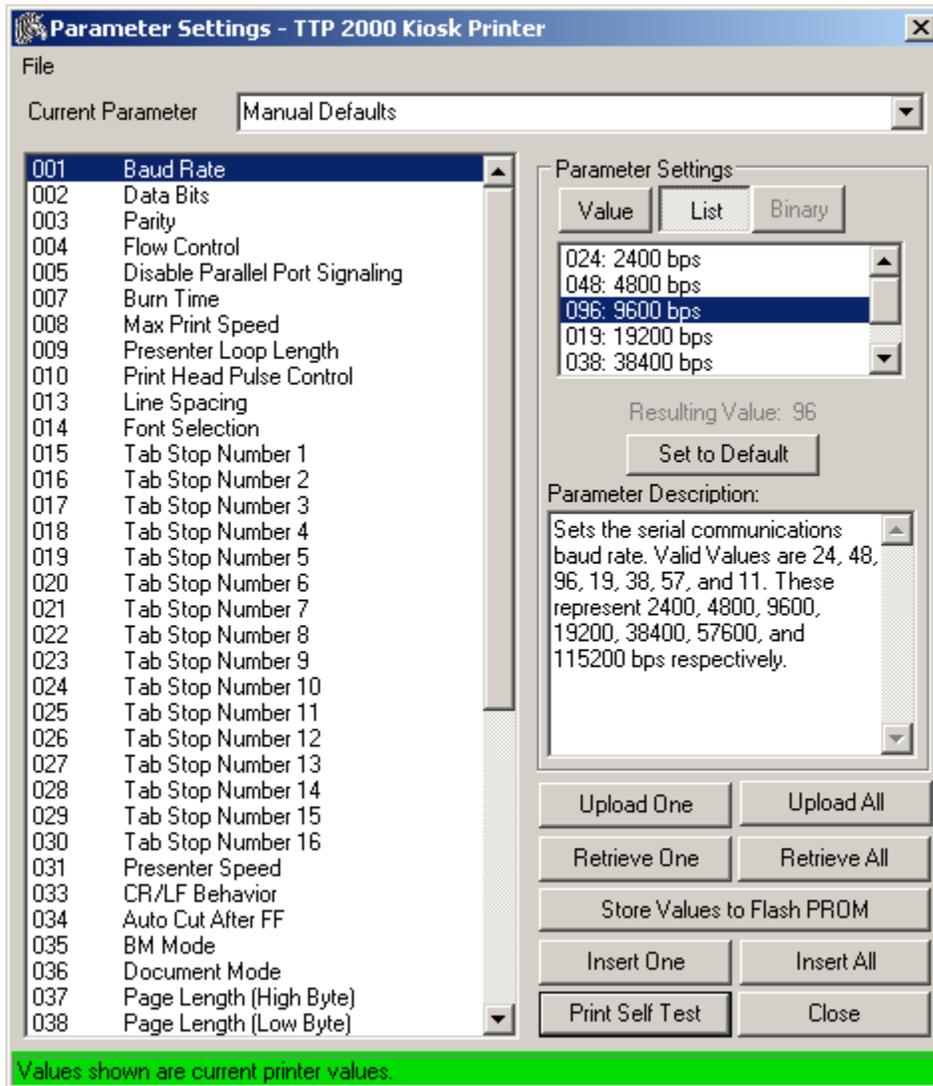
- Select the parameter to change. One can either select the parameter value from the list, or one can enter the value directly by selecting the Value button.

- After all values have been changed, select Upload All.

- Print a Self Test Page. All changed values will be preceded by an asterisk. This makes it easy to see the values changed.

- Select Store Values to Flash PROM. This makes the values persistent through a power cycle. The presenter motor will click to verify the values are stored.

- Close Toolbox and enable the print spooler as described on page 8.