

## Firmware Downloading

The Compuprint 9000 and 10000 family firmware (code) resides in flash memory. Throughout the printer's life cycle firmware changes may be made to address issues discovered in the lab, or by customers in the field. Normally it's not necessary to upgrade your printer, but if needed upgrading your printer's firmware is easy to do.

The Base and Interface code can be installed through either the printer's Parallel or Ethernet ports in a one file download operation.

### Loading code though the Parallel Port

Follow these instructions to load code through the parallel port using any computer with DOS or DOS Windows®. The instructions assume that you are nearby the printer and can access the operator panel.

1. For Windows computers install a 'Generic/Text Only' print driver.

In Windows click Start > Control Panel > Printer and Faxes > Add printer and choose the following settings.

- Local printer attached to this computer
- Port = LPT1
- Manufacturer = Generic
- Printer = Generic / Text Only
- Name your printer >Generic /Text Only
- Default printer = Yes
- Printer Sharing > Do not share
- Test Page > No

2. Printout the printer configuration menus to ensure original settings can be restored at the end of this procedure. Label the printouts "old".

**Note:** Loading new code does not change any of the printer's network interface settings (IP, subnet mask, gateway addresses), but other user defined configuration settings can be reset to factory default values.

- a. Power on the printer.
  - b. Load forms in the front tractor.
  - c. Press the **ON LINE** key to put the printer in WAIT status.
  - d. Press the **PROGRAM** key to enter in the Program Setup, the displays will show: **Printout ? NO**
  - e. Press the **MACRO** → key, the display will show: **Printout ? YES** and the Programs Setup is printed.
  - f. After the printout, the display will show: **Printout ? NO**.
  - g. Press the **LOAD/FF** ↓ key until **CONFIG. MENU NO** is displayed
  - h. Press the **MACRO** → key, the display will show: **CONFIG. MENU ? YES**.
  - i. Press the **LOAD/FF** ↓ key until **Printout ? NO** is displayed
  - j. Press the **MACRO** → key, the display will show: **Printout ? YES** and the Configuration Setup is printed.
  - k. After the printout, the display will show: **Printout ? NO**.
  - l. c. Press the **PROGRAM** key to exit the setup phase.
3. Power off the printer.
  4. Connect a standard parallel cable between your computer's LPT1 port and the printer.
  5. Press and hold the printer **MACRO** and **LF** keys and power on the printer.
  6. Release the keys after **RELEASE KEYS** displays and **WAITING CODE** will display with all LEDs flashing.
  7. In a DOS window type: `copy drive:\directory\filename.bin lpt1: /b <enter>`  
  
For example: **copy c:\temp\9065\_rel1.img lpt1 /b**
  8. While the printer code is being received **RECEIVING CODE** displays.
  9. While the printer code is being updated **ERASING SECT.XX** followed by **WRITING SECT.XX** displays.
  10. After the code download completes and is verified, **CODE OK** displays before the printer automatically reboots and **STARTING UP** displays.
- Note:** If "**NVM CHANGE**" displays, this means that all of the printer configuration settings have been restored to factory defaults.
11. Printout the printer configuration menus again (as described above) and label them "new".
  12. Compare the old and new configuration printouts and restore the printer's configuration as needed.

## Loading code though the Ethernet Port

Follow these instructions to FTP printer code to a network attached printer. The instructions assume that you are nearby the printer and can access the operator panel.

1. Printout the printer configuration menus to ensure original settings can be restored at the end of this procedure. Label this set of configurations as old.

**Note:** Loading new code does not change any of the printer's network interface settings (IP, subnet mask, gateway addresses), but other user defined configuration settings can be reset to factory default values.

- a. Power on the printer.
  - b. Load forms in the front tractor.
  - c. Press the **ON LINE** key to put the printer in WAIT status.
  - d. Press the **PROGRAM** key to enter in the Program Setup, the displays will show: **Printout ? NO**
  - e. Press the **MACRO** → key, the display will show: **Printout ? YES** and the Programs Setup is printed.
  - f. After the printout, the display will show: **Printout ? NO**.
  - g. Press the **LOAD/FF** ↓ key until **CONFIG. MENU NO** is displayed
  - h. Press the **MACRO** → key, the display will show: **CONFIG. MENU ? YES**.
  - i. Press the **LOAD/FF** ↓ key until **Printout ? NO** is displayed
  - j. Press the **MACRO** → key, the display will show: **Printout ? YES** and the Configuration Setup is printed.
  - k. After the printout, the display will show: **Printout ? NO**.
  - l. c. Press the **PROGRAM** key to exit the setup phase.
2. Make sure the code file is in the same directory that you will launch the FTP service from.
  3. In Windows:
    - a. Click Start > Control Panel > Network and Internet Connections.
    - b. Click "Network Connections".
    - c. Double click "Local Area Connections".
    - d. Highlight "Internet Protocol (TCP/IP)".
    - e. Click "Properties".
    - f. Set "Subnet Mask" and "Default Gateway" to the values on the printer Configuration Setup Printout.
    - g. Set "IP Address" to the printer's address + 1.

**Example:** If printer IP is 10.0.252.233 then set the computer IP to 10.0.252.234.

h. Click OK and close the window.

4. Connect your computer to the printer with an Ethernet cross-over cable.
5. Verify that the printer can be contacted from your computer.

In a DOS window, type “ping xxx.xxx.xxx.xxx” <enter> where “xxx.xxx.xxx.xxx” is the printer's IP address.

6. Open the FTP connection to the printer.

In a DOS window type **ftp xxx.xxx.xxx.xxx** <enter> where xxx.xxx.xxx.xxx is the printer IP address.

7. Type **root** for user login <enter>.

Type password (default=**root**) for password <enter>.

Type the commands: **ha** <enter> **bin** <enter> **cd firmware** <enter>.

8. Start the file transfer by typing: **put filename.bin** where filename.img is the name of the code file and press enter.

For example: **put 9065\_rel1.img** <enter>.

9. While the printer code is being received, the printer will display **REMOTE CONTROL** for approximately 1 minute.
10. When the file is successfully transferred the following host message appears:

**Enter Quit/Bye command to write CODE.**

11. Close the FTP connection by typing the command: **bye** <enter>. After the FTP session is closed the file update will start.
12. After the code update completes, the printer automatically reboots and **STARTING UP** displays.
13. Printout the printer configuration menus again and label them “new”. Compare the new printout to one the old printout, and restore the old menu settings as needed.

**Note:** The new code version level also prints out.

## Error messages

**INVALID CODE:** Binary code file is corrupt or incompatible.

**ERROR RECOVERY ACTION:** Open the Windows (Generic/Text only) print driver queue, cancel all pending print documents, and try again. If the error repeats the code file may be corrupted or incompatible with this printer model.

After displaying this message, the printer automatically discharges any code upgrade and escapes from the firmware downloading procedure returning in normal ON LINE status.

**FILE NOT FOUND:** Code file cannot be found by DOS.

**ERROR RECOVERY ACTION:** Change the path in the DOS window to the directory where the code file is located.