

Driving the Zebra QL320/QL420 Mobile Printers using Loftware

First things first - Make sure you have a copy of the QL320/QL420 User's Guide. The guide comes from the manufacturer, and is the best source of information about the QL320/QL420 printers. There are copies available for download from www.zebra.com. It is also a good idea to make sure you have a copy of the Label Vista program installed, which is useful for configuring and obtaining printer settings as well as performing software updates to the printer. This program is also available for download from www.zebra.com.

Overview - The QL320/QL420 in its standard configuration can not be driven using the Loftware Zebra QL320/QL420 native printer driver, the printer must have optional features installed in order for this driver to work. These options are may be upgraded and if necessary should be done with assistance or specific instructions from a Zebra representative. For informational purposes this document provides the general steps required for these upgrades.

If you are unsure what options your printer is equipped with, print out a configuration label. The instructions for doing so as published in the QL320/QL420 User's Guide are as follows:

1. Turn the printer off. Load the media compartment with journal media (media with no black bars printed on the back)
2. Press and hold the Feed Button.
3. Press and release the Power button while keeping the Feed button pressed. When printing starts, release the Feed button.

Printer requirements - 2 MB Flash memory

The configuration label shows how much flash memory the printer is equipped with. It comes standard with 1MB. Contact your Zebra representative if you need to increase the printer's memory.

ZPL Interpreter - If the printer is equipped with this option, the "File Directory:" section of the configuration label contains a "ZPL Configuration Information" section. If your printer is not equipped with this option, follow these general steps:
(Consult your Zebra representative for specific information.)

1. Assure that the printer has the required 2MB of flash memory.
2. Download the ZPL Interpreter to the printer. You may need to obtain the ZPL Interpreter file from Zebra. The file can be transmitted to the printer using the supplied serial cable & the Label Vista program.

Printer connections & configuration - By default, the QL320/QL420 is configured to turn itself off after 2 minutes of inactivity. Loftware recommends disabling this setting from the Printer Settings page in Label Vista.

Additionally, by default it is configured to turn itself off whenever it receives a high to low signal transition on its DTR pin. If you will be printing with a serial connection, Loftware also recommends disabling this setting from the Printer Settings page in Label Vista.

Serial connection - Use the supplied serial cable to configure the printer using the Label Vista program or to print serially using Loftware. When printing with Loftware be sure to match the parity, baud rate, data bits, stop bits, and flow control settings in the Printer Connection dialog box to those in the printer.

Network Connection - Configure the various network settings (IP Address, Subnet Mask, Gateway, Network Port, etc...) via a serial cable with the Label Vista program.

When printing from Loftware, the IP Address & Raw Port settings in the Printer Connection dialog box should match the IP Address and Network Port settings in the printer.

(Note: If you are using an Access Point to connect a QL320N/QL420 to your LAN, the IP Address of the Access Point should be different than the IP Address of the printer.)

Using stock with either gaps or black marks - If your label stock has no gaps, separations or marks between labels, choose Continuous for the Stock Type in the Printer Setup dialog box in Loftware. Otherwise choose Non-Continuous for the Stock Type. You may need to calibrate the printer if it incorrectly feeds to the end of the label after printing. To calibrate the printer you must send it the ZPL calibrate command which is ~JC. There are several ways you can send this command to the printer.

1. If you are using the serial connection, open the Printer Setup dialog box in Loftware Design. In the ZPL Command text box, type in "~JC" (without the quotes) then click the Send ZPL button. Make sure to remove the ~JC before exiting the dialog box.

2. If you are using an IP connection you can send the calibration command either from Loftware or from Label Vista.

From Loftware - open the Printer Setup dialog box in Loftware Design. In the ZPL Command text box, type in "~JC" (without the quotes). In the Send Command drop down list, choose Before Label, Click OK, then OK again. Then test print the label, the printer should first calibrate, then print your label. Make sure to go back into the Printer Setup dialog box and remove the ~JC.

From Label Vista – Create a text file that contains the ~JC command. Use Notepad, making sure that that command (followed by a <return>) is the only thing in the file. Use the Send File menu item to send the text file to the printer. Loftware Versions 7.0 and above include a ZPL_calibrate.dat file in the ...\\Loftware labeling\\Diagnostic directory.

Configurations for Continuous printing with QL320/420:

The two settings that have been added in Loftware are as follows:

1. With all Loftware programs closed, open Loftware's llmwdn32.ini file, in the [Zebra] section, add / change the following command to TearOff=0.
2. In Loftware Design Mode, open the label and from the File menu, choose Label Setup and Label Options. Add the custom ZPL command for maximum label length, ^ML609 and set the option to Send Command Before Label.
* *Note: 609 = 203dpi * 3 inches.

Example:

```
[Zebra]
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TearOff=0
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Loftware requirements - The Loftware Zebra QL320/QL420 drivers are included in version 6.1.2.17, Service Pack 10 and in all subsequent versions. Please contact your Loftware representative for information about upgrading.