

# Configuring your Zebra Printer for Opsman Mobile

There are 2 ways your printers can be configured, via a Windows computer with the Zebra Setup Utility and Firmware Downloader Applications, or via the Handheld Assistant Android App.

**[Supported printers for Opsman: IMZ320, ZQ320, ZQ510, ZQ511, ZQ520, ZQ521]** Document Version 1.3 - Updated 4/1/23

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## Via Handheld Assistant App on Android

This app was made to help configure and update the firmware on Zebra printers used with the Opsman Mobile Enforcement App by **Passport Labs, Inc.** It is not available on the Google Play Store, so it must be downloaded and installed manually.

**Android App Download:** (Help with [download & install](#) is at the end of this document)

<https://drive.google.com/drive/folders/147w7ecUpeRkRietpleyprvkAOgNOY2Tb?usp=sharing>

Or scan the barcode with your camera app or Google Lens. This may require you to enable QR Code scanning in [settings](#).



**Configure your Zebra printer from the Android App** [\[Here\]](#)

**Printer Calibration for paper with pre-printed text and black marks** [\[Here\]](#)

**Update the Firmware on your ZQ printer from the Android App** [\[Here\]](#)

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## Via a Windows PC

This method uses an application made by Zebra to perform the configuration/update from a PC to the printer via the USB cable that they come with.

**Zebra Setup Utilities Download:**

<https://www.zebra.com/us/en/support-downloads/printer-software/printer-setup-utilities.html>

**Zebra Firmware Downloader:**

<https://www.zebra.com/us/en/support-downloads/printer-software/zdownloader.html>

If these links no longer function just search for them on Google.

**Configure your Zebra printer from a Windows PC** [\[Here\]](#)

**Update the Firmware on your ZQ printer from a Windows PC** [\[Here\]](#)

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## Support:

If you are unable to get your printers working with Opsman Mobile or need further assistance, please contact Passport Support: [help@passportinc.com](mailto:help@passportinc.com)  
Please include the printer serial number, Model, and Firmware version.

# Zebra Printer Configuration via Android App

This is required for Zebra printers to work with Opsman Mobile

1. Download the app to the Android phone you will install on:  
<https://drive.google.com/drive/folders/147w7ecUpeRkRietpleyprvkAOgNOY2Tb?usp=sharing>
2. Power on the printer that you want to configure.
3. Ensure the Bluetooth on your phone is turned on.
4. The first step once the app is installed is to Scan/Type the printer Bluetooth MAC address into the first field:



With the Zebra Phones you should be able to scan the Bluetooth barcode on the bottom of the printer, otherwise just type it in.

Ensure you use the Bluetooth MAC and not S/N or Model numbers.

The screenshot shows the Zebra printer configuration app interface. At the top, there's a status bar with the time '4:10 PM'. Below it, a header bar contains a 'Scan or Type MAC' button and a 'GET DEVICE INFO' button. The main area has fields for 'SN:', 'Model:', and 'FW:', each followed by a 'CHECK CONFIG' button. Below these are several other buttons: 'PRINT CONFIG', 'FACTORY RESET', 'CHECK STATUS', 'SEND CONFIG', 'CHK PWR HLTH', 'SET BAR SENSE', 'CHK PWR SAVE', 'CALIBRATE', 'PWR SAVE OFF', 'REBOOT', and 'SET PWR SAVE TO SUGGESTED'. The 'SEND CONFIG' and 'SET BAR SENSE' buttons are highlighted with orange borders.

5. If you scan the BT barcode it will automatically "Get Device Info" and fill in the SN/Model/FW fields. If you manually entered the MAC, click the "GET DEVICE INFO" button.

If this is the first time you are connecting this phone to this printer, the printer will need to pair to the phone. On some models you will have to accept the pairing on both the phone screen and via the 'Check' button on the front of the printer.

6. If the Device information is populated you can continue on to configure the device. Otherwise troubleshoot the printer/phone/etc.
7. Click "SEND CONFIG", you will see the bluetooth light on the printer start flashing indicating the config is being sent. Once the blue light turns off, continue to the next step. If the blue light did not illuminate the printer did not receive the settings.
8. Click "SET BAR SENSE", again you will see the bluetooth light on the printer begin flashing. Once the blue light goes off, configuration is complete. Printer is ready to be used with Opsman Mobile. If the blue light did not illuminate the printer did not receive the settings.
9. If you have the ticket paper rolls you will be using and they are not blank paper, IE have a black mark on each ticket, insert a paper roll in the printer, close the door and allow the printer to feed a partial ticket. Click the "CALIBRATE" button and the printer will self-detect the length of a single ticket by measuring the distance between the 2 black marks.
10. At this point your printer is configured and you may log into Opsman and connect the appropriate printer, note the last 4 of the serial number as you will need that in the connection process.
11. Test print a ticket/citation and check the following:
  - Printer stops the perforation line at the tear off point of the printer.
  - If using custom tickets, look for overlap of text over the pre-printed or colored areas of the ticket.
  - Printer prints one ticket and stops, no extra blank ticket fed after the print.
12. If there are any issues, take a photo of the printed ticket with it still sticking out of the printer and call or submit a ticket for Support. We will need this photo and a description of the issue to assist with correcting the printing.

E-Mail: [help@passportinc.com](mailto:help@passportinc.com)

# Zebra Printer Firmware Upgrade via Android App

Though not required for Opsman Mobile, this will keep your printer updated and prevent potential issues caused by flaws in the firmware.

1. Download the app to the Android phone you will install on:  
<https://drive.google.com/drive/folders/147w7ecUpeRkRietpleyprvkAOgNOY2Tb?usp=sharing>
2. Power on the printer that you want to update the Firmware on. The printer will need to be at least halfway charged as the firmware update may take up to 10 minutes or so.
3. Ensure the Bluetooth on your phone is turned on.
4. The first step once the app is installed is to Scan/Type the printer Bluetooth MAC address into the first field:



With the Zebra Phones you should be able to scan the Bluetooth barcode on the bottom of the printer, otherwise just type it in.

Ensure you use the Bluetooth MAC and not S/N or Model numbers.

A screenshot of the Zebra printer app interface on an Android phone. The status bar at the top shows the time as 4:10 PM. The app has a purple header with a Zebra logo. Below the header, there is a section with a barcode icon and the text 'Scan or Type MAC', and a button labeled 'GET DEVICE INFO'. Below this, there are fields for 'SN:', 'Model:', and 'FW:'. To the right of these fields are buttons for 'CHECK CONFIG', 'PRINT CONFIG', 'CHECK STATUS', 'CHK PWR HLTH', 'CHK PWR SAVE', 'PWR SAVE OFF', and 'SET PWR SAVE TO SUGGESTED'. At the bottom, there are buttons for 'FACTORY RESET', 'SEND CONFIG', 'SET BAR SENSE', 'CALIBRATE', and 'REBOOT'.

5. If you scan the BT barcode it will automatically "Get Device Info" and fill in the SN/Model/FW fields. If you manually entered the MAC, click the "GET DEVICE INFO" button.

If this is the first time you are connecting this phone to this printer, the printer will need to pair to the phone. On some models you will have to accept the pairing on both the phone screen and via the 'Check' button on the front of the printer.

6. If the Device information is populated you can continue on to configure the device. Otherwise troubleshoot the printer/phone/etc.

7. Before we can update the firmware, we must download the firmware file. Using the Model of printer populated above when you click "GET DEVICE INFO", the app will know which firmware to download. Click the "DOWNLOAD FIRMWARE".

8. The appropriate firmware file will download and then be listed on the right hand side of the app. If there is a problem, troubleshoot your internet connection on the phone. Perhaps try Wi-Fi if there is little or no cell signal.

ZQ320 files beginning with V81

ZQ510/520 files beginning with V76

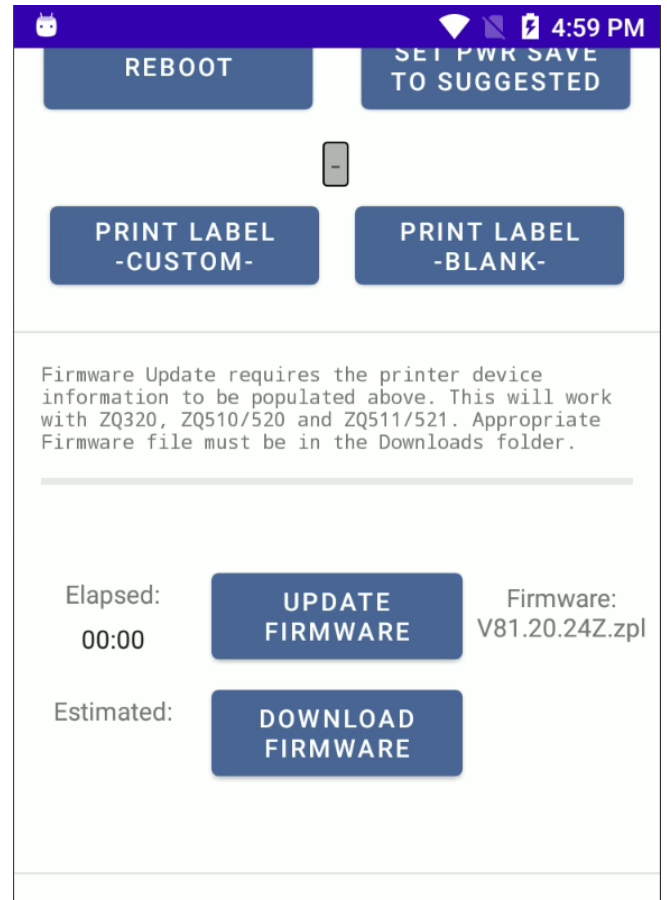
ZQ511/521 files beginning with V91

9. Once downloaded, you can click the "UPDATE FIRMWARE" button. The process may take around 10 minutes per printer. The Bluetooth light will illuminate indicating that the upgrade is in progress. Once the firmware is transferred, there will be some time that the printer just appears to sit. The printer is processing the update and will reboot when complete.

10. After the printer reboots it will print a configuration label which you can use to confirm the version of the firmware that is now on the printer.

11. If there are any issues, take note of what occurred and what lights are illuminated on the printer. Call or submit a ticket for Support.

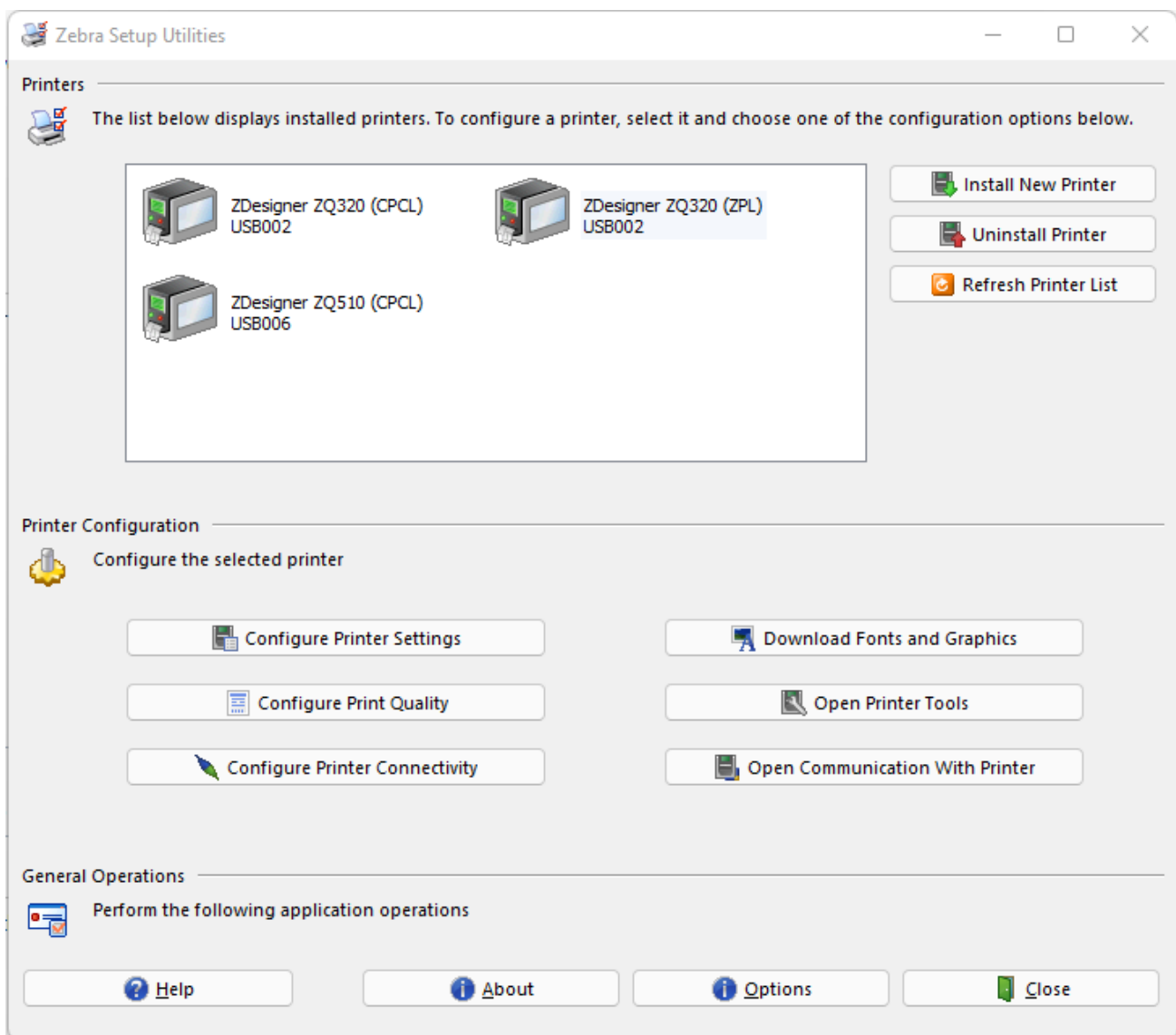
E-Mail: [help@passportinc.com](mailto:help@passportinc.com)



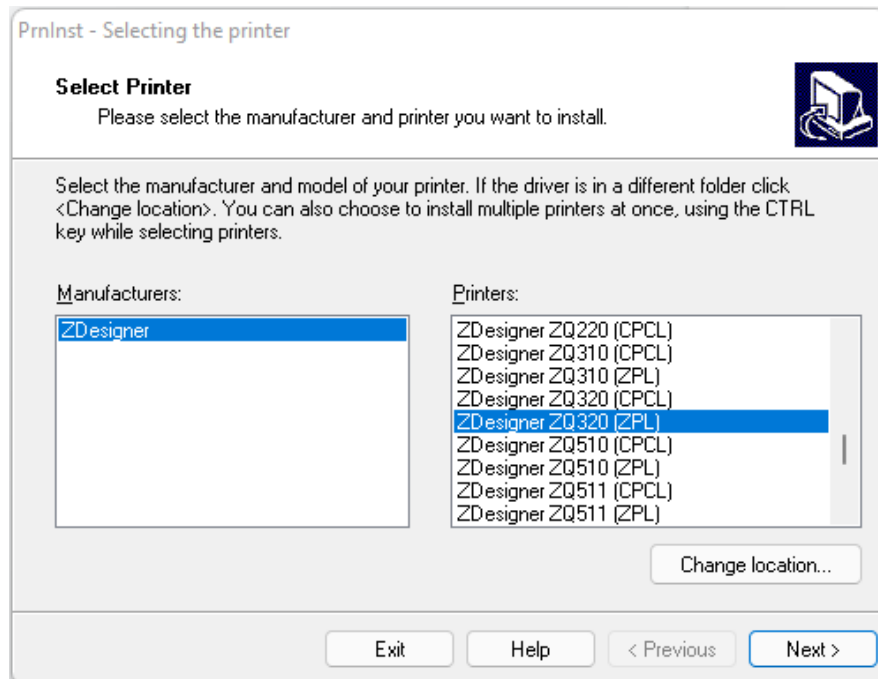
# Zebra Printer Configuration via Windows PC

This is required for Zebra printers to work with Opsman Mobile

1. Download the Zebra Setup Utility to the PC we will Install it on:  
<https://www.zebra.com/us/en/support-downloads/printer-software/printer-setup-utilities.html>
2. Run the Install, you may need Admin permissions to perform the install or even to run once installed.
3. Power on the printer that you want to configure and connect to the PC via the USB cable.
4. Open the application, it may prompt you to install drivers if it does not auto detect the model.
5. Select the printer, if you do not see one listed click on "Install New Printer" and follow the instructions.

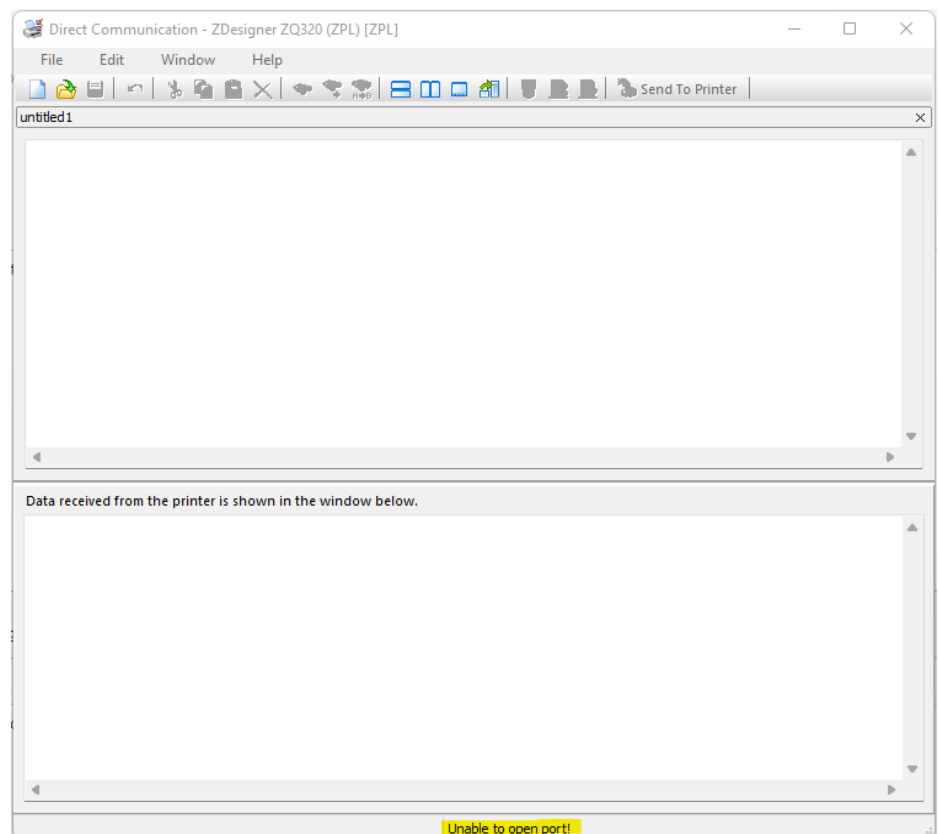


6. If you need to Install the printer choose the appropriate model with (ZPL) printer language. During the installation it may prompt you to install Zebra Designer and Zebra Port Monitor. Un-check Designer, but do check Port Monitor. This will help the Zebra software locate what port your printer is connected to.

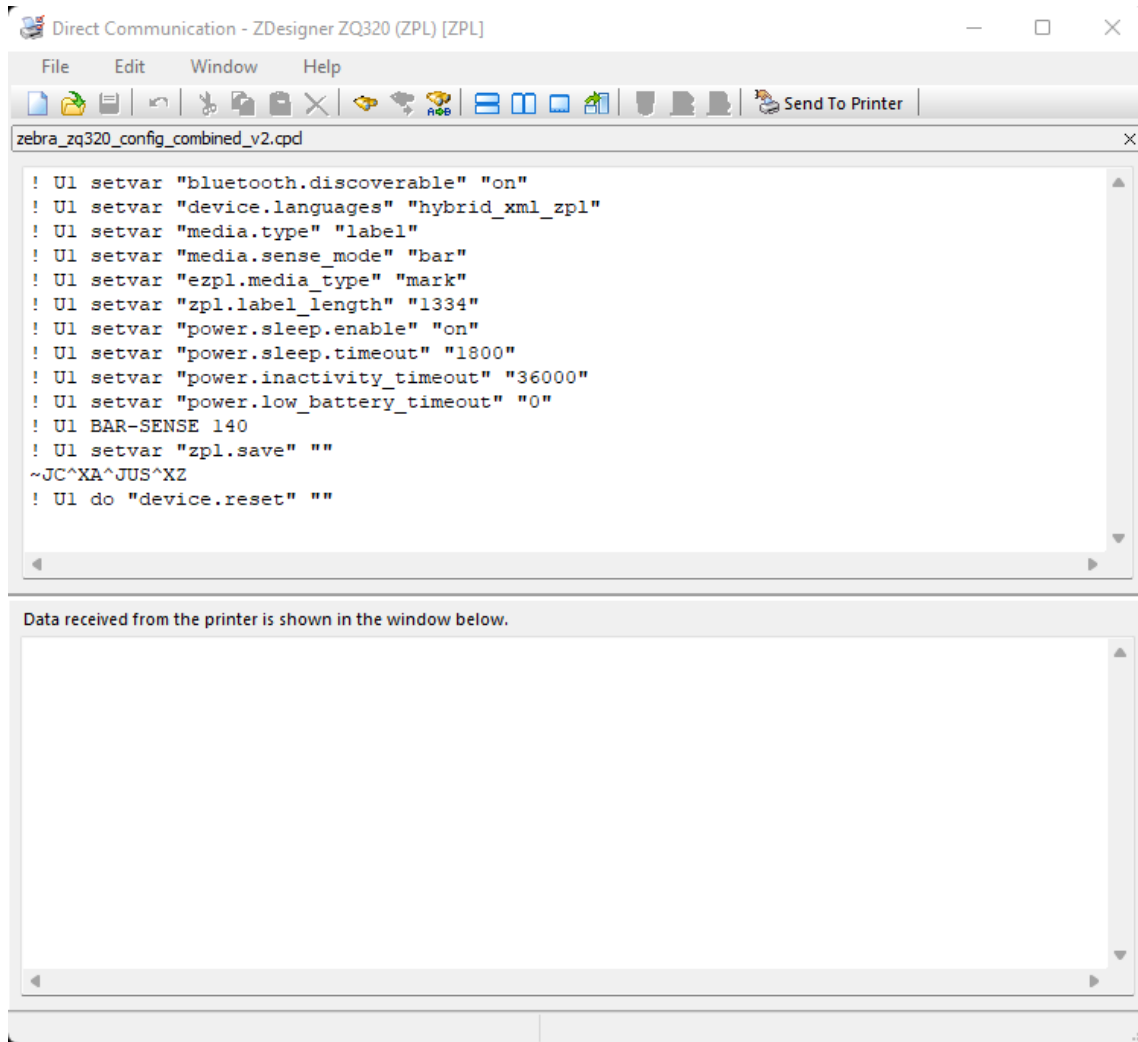


7. Once the printer is installed and selected, click “Open Communication With Printer”.
8. If the bottom edge of the Direct Communication windows shows “Unable to Open Port”, the PC will be unable to send the configurations to the printer. This either means the installed printer is using a different USB port than what the printer is actually connected to, or otherwise cannot detect it.

You may try to reboot the PC to see if this resolves, or you may have to uninstall and reinstall the printer.



9. Once you get the Communications window to open without error, we then need to populate the top box which is the outbound commands that will be sent to the printer.



10. You can manually copy these lines into that field or you can download the file and choose File -> Open and select it (make sure to copy the last blank line as well, it is important!!!):

```
! U1 setvar "bluetooth.discoverable" "on"
! U1 setvar "device.languages" "hybrid_xml_zpl"
! U1 setvar "media.type" "label"
! U1 setvar "media.sense_mode" "bar"
! U1 setvar "ezpl.media_type" "mark"
! U1 setvar "zpl.label_length" "1334"
! U1 setvar "power.sleep.enable" "on"
! U1 setvar "power.sleep.timeout" "1800"
! U1 setvar "power.inactivity_timeout" "36000"
! U1 setvar "power.low_battery_timeout" "0"
! U1 BAR-SENSE 140
! U1 setvar "zpl.save" ""
~JC^XA^JUS^XZ
! U1 do "device.reset" ""
```



Zebra Configuration File for Opsman:

[Zebra\\_Config\\_Opsman.cpcl](#)

11. Before you Click "Send To Printer", the printer must be powered on, a paper roll inserted, and all lights must be **SOLID**. After you click "Sent To Printer" the lights on the printer should start **FLASHING**, the printer may also spit out some paper.

12. Once the lights become **SOLID** again the reboot has completed and the printer should be ready to connect and test in Opsman.

If the lights do not start flashing, the printer has not received the commands and you will need to troubleshoot.

13. At this point your printer is configured and you may log into Opsman and connect the appropriate printer, note the last 4 of the serial number as you will need that in the connection process.

14. Test print a ticket/citation and check the following:

- Printer stops the perforation line at the tear off point of the printer.
- If using custom tickets, look for overlap of text over the pre-printed or colored areas of the ticket.
- Printer prints one ticket and stops, no extra blank ticket fed after the print.

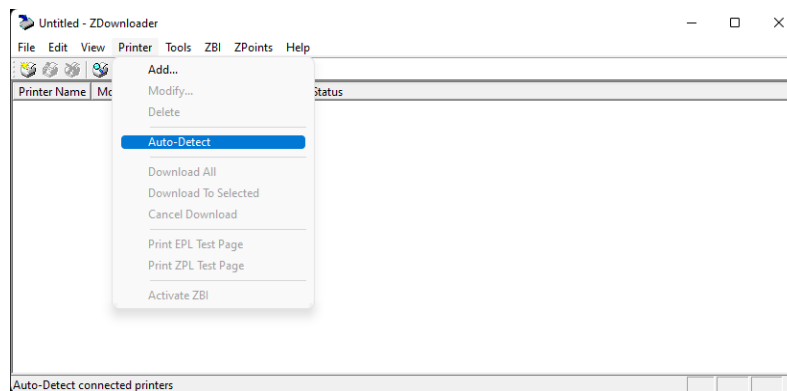
15. If there are any issues, take a photo of the printed ticket with it still sticking out of the printer and call or submit a ticket for Support. We will need this photo and a description of the issue to assist with correcting the printing.

E-Mail: [help@passportinc.com](mailto:help@passportinc.com)

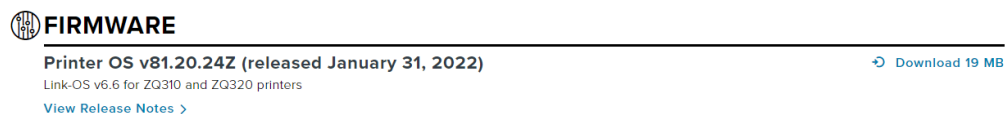
# Zebra Printer Firmware Upgrade via a Windows PC

Though not required for Opsman Mobile, this will keep your printer updated and prevent potential issues caused by flaws in the firmware.

1. Download the app: <https://www.zebra.com/us/en/support-downloads/printer-software/zdownloader.html>
2. Power on the printer that you want to update the Firmware on. The printer will need to be at least halfway charged as the firmware update may take a few minutes.
3. Open the ZDownloader application and open the menu Printer -> Auto-Detect. The software should detect the printer if connected via USB and powered on.



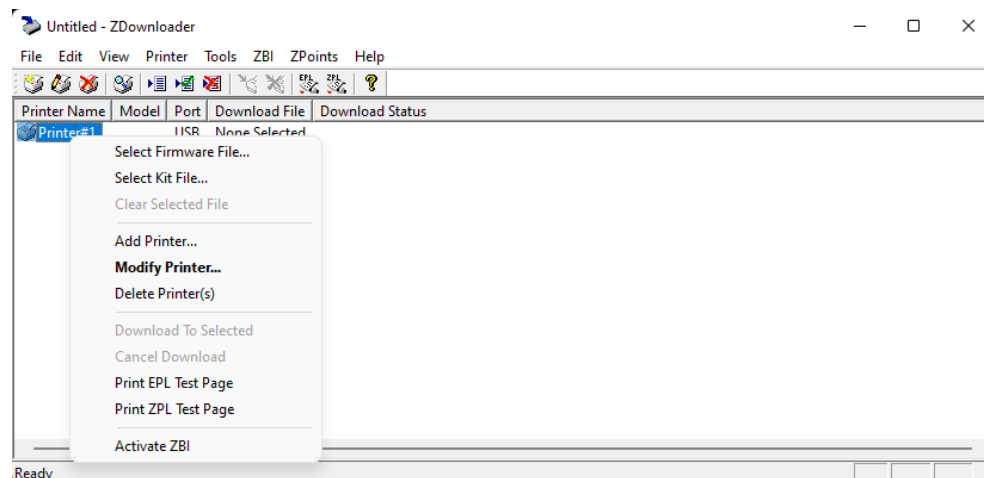
4. We now need to download the appropriate firmware file for the model printer we are updating. Go to the Zebra Support & Downloads: <https://www.zebra.com/us/en/support-downloads/printers.html>



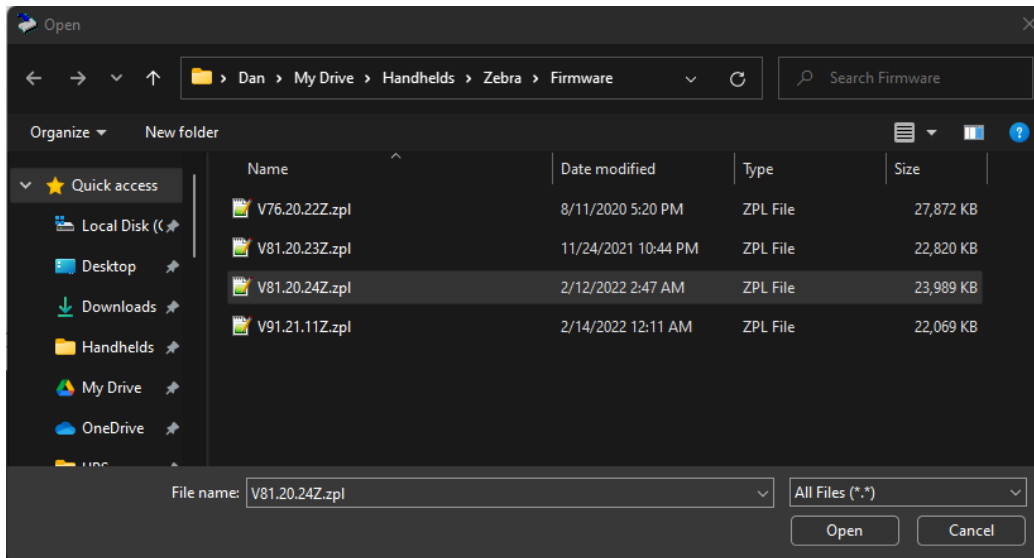
The file you download here is a ZIP file with multiple files within. We only need the .ZPL file, go ahead and extract or copy it to another folder.

IMZ320 - v73.xx.xx	ZQ320 - v81.xx.xx	ZQ510/520 - v76.xx.xx	ZQ511/521 - v91.xx.xx
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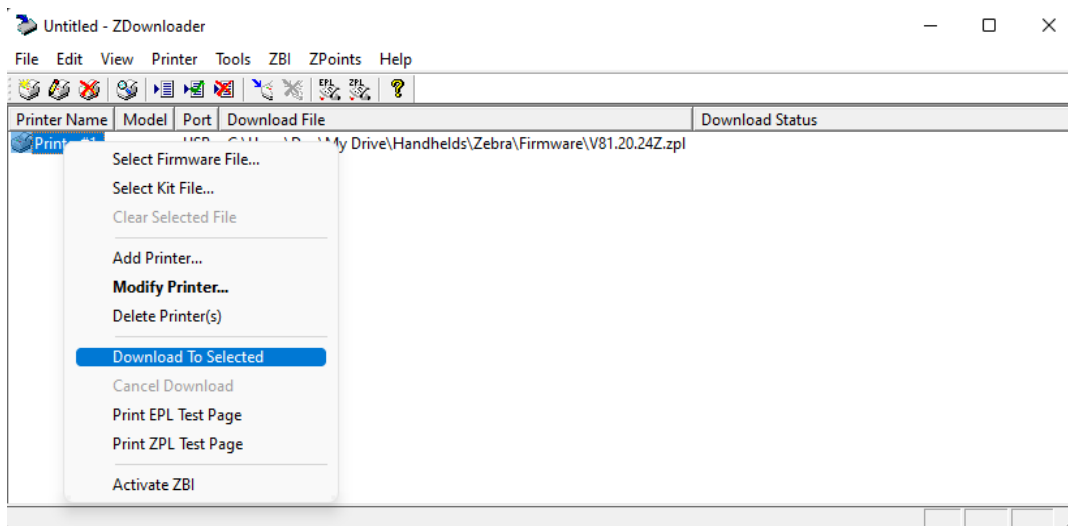
5. Right click on the printer in the list and "Select Firmware File".



6. Browse to and select the correct file. It will take a minute for the software to process the file and populate the path.



7. Right click the printer in the list again, this time we will select "Download To Selected":



8. The download may take a minute or two. After completion, the printer will reboot and it will print a configuration label which you can use to confirm the version of the firmware that is now on the printer.
9. If there are any issues, take note of what occurred and what lights are illuminated on the printer or on-screen errors. Call or submit a ticket for Support.

E-Mail: [help@passportinc.com](mailto:help@passportinc.com)

# Zebra Printer Calibration via Android App

1. Download the app to the Android phone you will install on:  
[https://drive.google.com/drive/folders/1adcQBUqFa6\\_ddyZLAyt7qO4yETHOKhde?usp=sharing](https://drive.google.com/drive/folders/1adcQBUqFa6_ddyZLAyt7qO4yETHOKhde?usp=sharing)
2. Power on the printer that you want to configure.
3. Ensure the Bluetooth on your phone is turned on.
4. The first step once the app is installed is to Scan/Type the printer Bluetooth MAC address into the first field:



With the Zebra Phones you should be able to scan the Bluetooth barcode on the bottom of the printer, otherwise just type it in.

Ensure you use the Bluetooth MAC and not S/N or Model numbers.

A screenshot of the Zebra printer calibration app interface. At the top, there is a status bar with the time 4:10 PM. Below that, there is a header bar with a 'Scan or Type MAC' button and a 'GET DEVICE INFO' button. The main area contains fields for 'SN:', 'Model:', and 'FW:', each followed by a 'CHECK CONFIG' button. Below these are several other buttons: 'PRINT CONFIG', 'FACTORY RESET', 'CHECK STATUS', 'SEND CONFIG', 'CHK PWR HLTH', 'SET BAR SENSE', 'CHK PWR SAVE', 'CALIBRATE', 'PWR SAVE OFF', 'REBOOT', and 'SET PWR SAVE TO SUGGESTED'.

5. If you scan the BT barcode it will automatically "Get Device Info" and fill in the SN/Model/FW fields. If you manually entered the MAC, click the "GET DEVICE INFO" button.

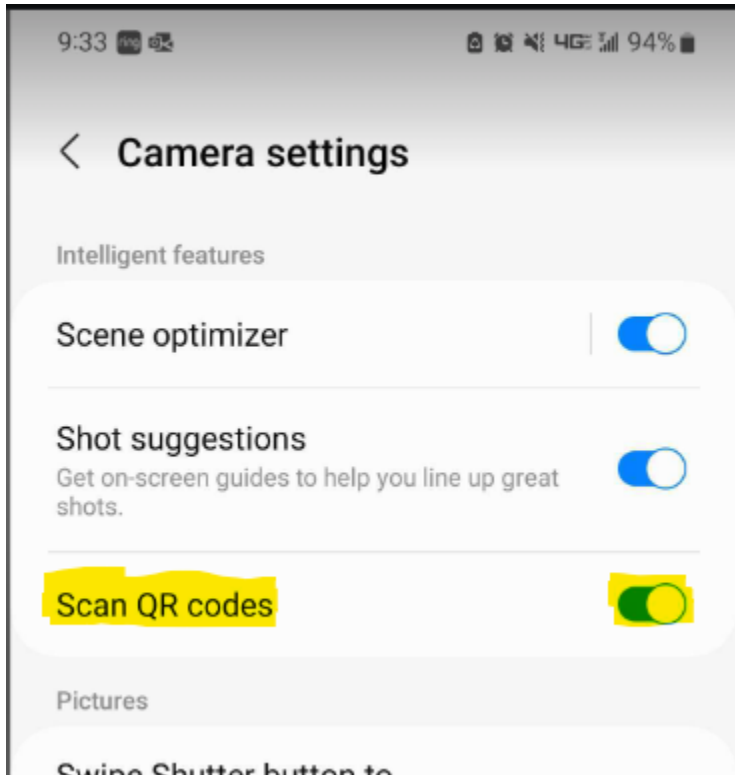
If this is the first time you are connecting this phone to this printer, the printer will need to pair to the phone. On some models you will have to accept the pairing on both the phone screen and via the 'Check' button on the front of the printer.

6. If the Device information is populated you can continue on to configure the device. Otherwise troubleshoot the printer/phone/etc.
7. Click the 'CALIBRATE' button. This will tell the printer to perform a feed which will feed enough paper to detect two black marks. This allows the printer to measure the length of a single ticket and store it so it can feed the proper length from that point on.

# Camera Settings for QR Code Scanning

On the Zebra TC26/TC57/etc. devices they come equipped with a laser scanner, simply open a browser and highlight the address field then use one of the Yellow/Black scan buttons on the left or right side of the device.

At least on some phones, like my Samsung S22, you may need to open the camera settings and enable “Scan QR Codes” before the above barcode will scan.

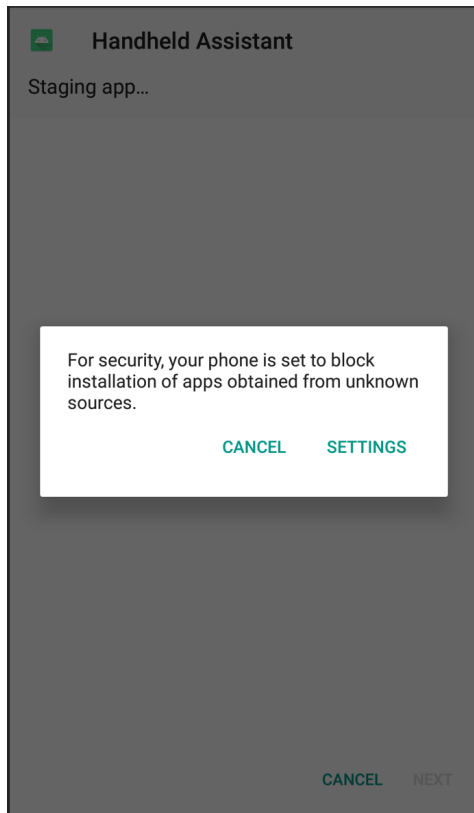


Alternatively you can use the Google Lens App to scan the QR code if your camera does not support scanning. This app must be installed from the Google Play Store.

# Downloading & Installing the Handheld Assistant App

Once you scan or go to the link, you will first need to download the app. The first screen you will see will be this (right).

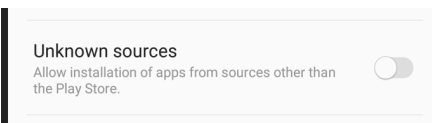
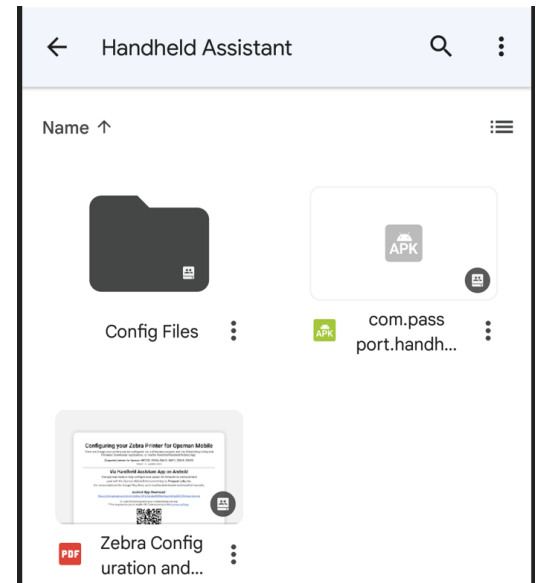
Click and download the **com.passport.handheldassistant** APK file.



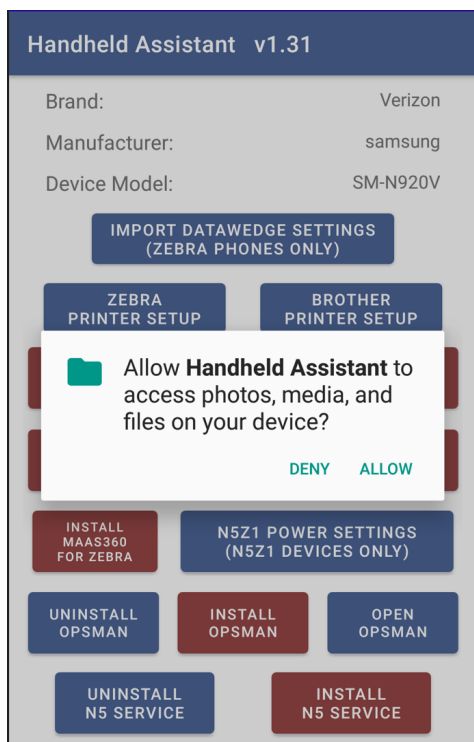
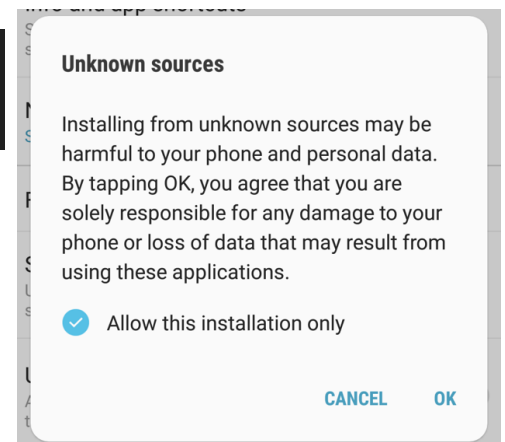
After downloading you will need to install the App.

You may see a security warning like this, but the app is safe.

Click on Settings and you must either allow the installation of apps from Unknown sources or (on newer devices) you may have to approve the specific app, IE Google Drive to install the file.



Turn this on and you will be prompted as below:



You can leave the checkbox for **"Allow this installation only"** which will make this a one-time exception.

It may take you back to the install of the APK file automatically, or you may have to click the Back button to return. Then you can proceed with the installation.

Once the app is installed open it up and you will be prompted for the App permissions. The App only uses access to files so that it can download files to help configure the Zebra Printers and/or Zebra Phone scanner settings. It does not upload or share anything from your device.