



Nanoptix
Orizon™ NextGen

**Firmware Upgrading & Recovery
Instructions**

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Date: October, 2020
Document#: 700018-0000 Rev 1.0

Section 1: USB Setup and Installation

NOTES:

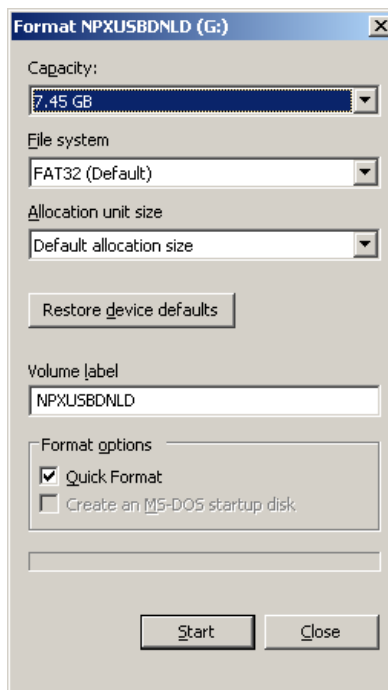
- A USB flash drive (or similar USB mass storage device) is required in order to complete the process. The storage capacity of the drive must be between 512MB and 32GB



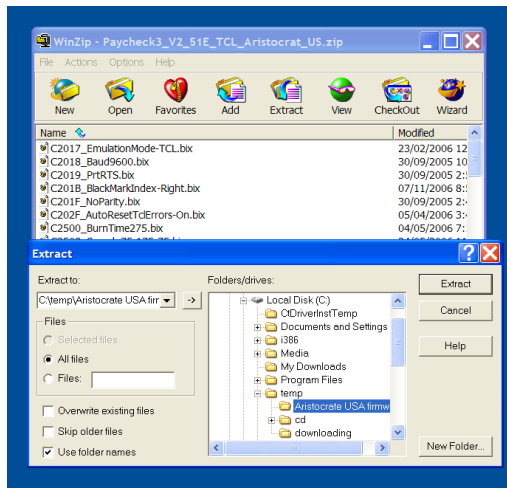
ESD protection (such as a wrist strap) must be used anytime a PCB is exposed



1. For specific firmware requests please contact support@nanoptix.com to receive a download link to the firmware.
2. Download the firmware to a known location on your local disk.
3. Prepare the USB flash drive by inserting it into one of your computer's USB ports.
4. Format the USB flash drive using a FAT32 file system, set the allocation unit size to the default setting and **change the volume label to "NPXUSBDNLD"**

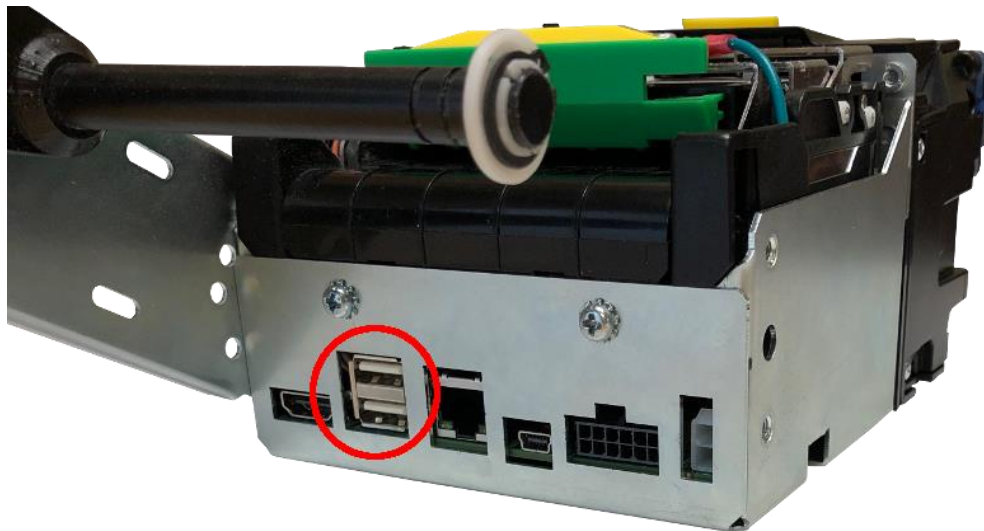


5. Extract the whole content of the ".zip" file that contains the firmware, provided by Nanoptix, to the USB flash drive that was prepared in step 4.



6. Make sure the Orizon™ NextGen printer is OFF then Insert the USB flash drive in one of the 2 USB host ports

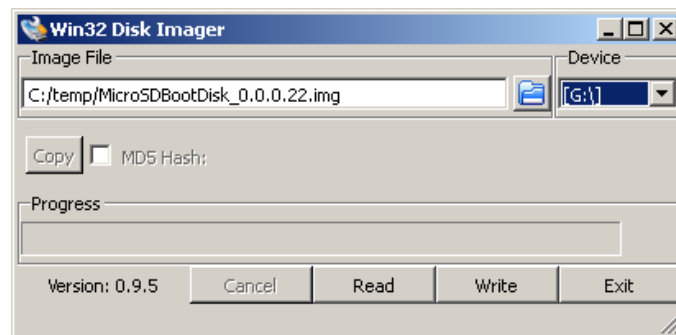
NOTE: If the firmware needs to be restored using a micro SD card, go to section 2



7. Plug in the printer to turn it ON.
8. On power up, the red LED will be illuminated, after 15 seconds, the download will start. As confirmation, the printer will emit a beeping sound at approximately a 1 second interval and the green LED will blink at the same speed.
9. Since only the sections of firmware that change will be downloaded, the process takes anywhere between 1 second and 6 minutes. Once complete, the speed of the LED and beeping will increase to 3 times per second.
10. Once the rapid beeping is heard, the USB flash drive can be removed. The printer will reset and boot up with the newly downloaded version of firmware. This process takes approximately 20 seconds; the illumination of the green LED is a confirmation that the printer is ready.
Note: Do not disconnect power or communication until the download is complete.
11. As verification a **power on test ticket** can be printed. To print the test ticket, the printer must be powered "ON" while holding the paper feed button for up to 15 seconds. A status ticket similar to below will be printed. Pressing the button again will result in blank tickets. This ticket can be used to verify the *firmware version*.

Section 2: Restoring printer's firmware

- A micro SD is required in order to complete the process. The storage capacity of the card must be between 512MB and 32GB
 - Win32 Disk Imager is required in order to prepare the micro SD card. The Win32 Disk Imager software can be downloaded from <https://sourceforge.net/projects/win32diskimager/>
1. Contact support@nanoptix.com to receive a download link to the recovery image.
 2. Download the .img file to a known location on your local disk.
 3. With the Orizon NextGen powered off.
 4. Insert the micro SD card in your card reader and note which drive letter is associated with the micro SD card when it's connected. (Example "G:"). Then start the win32 Disk Imager software.
 5. Navigate to and select the image file that was downloaded previously in step 4. Select the Device that corresponds to the Micro SD card that was inserted in step 5.



6. Click the Write button, when prompted about overwriting the disk, click yes. Once complete, eject the micro SD card.
7. Insert the micro SD recovery card into the micro SD slot on the side of the printer. And insert the Nanoptix USB download drive (USB flash drive created in section 1) into one of the back USB Host ports of the printer.
8. Power on the printer, the red LED will be illuminated, after 15 seconds, the download will start. As confirmation, the printer will emit a beeping sound at approximately a one second interval and the green LED will blink at the same speed.
9. The process takes anywhere between 1 second to 6 minutes. Once complete, the speed of the LED and beep will increase to 3 times per second. At that point, disconnect the printer and remove the USB flash drive and micro SD cards. Restore dip switch 1 to the OFF position
10. Plug in the printer and verify the firmware downloaded correctly.