

Notable Improvements (OS/Firmware version V4.4):

- Small Particle Mode (SPM) fix for newer (Type S Lot 1701 or greater) cassettes. Resolves gain issues where populations were coming in off-scale for new cassettes. **Note: New cassettes now require the use of PBS (or media of similar conductivity) with SPM. Orflo Diluent is no longer supported for the new cassettes.**
- New lookup-table based diameter conversion at the signal level.
- Higher precision histograms for both volume and diameter.
- All popup messages now auto-center the text and heading
- Peak-Detection code robustness improvement.
- Improved Y-scaling of opened histograms, gated or curve-fit.
- Improved thumbnail quality
- Improved file-save speed.
- Improved histograms screen mapping for faster painting, improving marker moves significantly.
- Changed SPM range from 2-10 to 2-12 to improve the resolution of bin distribution.

Notable Improvements (OS/Firmware version V4.3):

- Updated cassette parameters for use with Type S Cassettes (Required for Type S Cassettes Lot 1701 or newer)

Notable Improvements (from OS/Firmware version V4.0/V4.1):

- Displays standard deviation (SD) and coefficient of variation (CV %) for curve fits.
- Increased sample loading period from 60 seconds to 120 seconds
- “Sticky” x-axis rescaling (remembers re-scale level from prior test) for faster batch processing.
- Adjustments to support new (Lot# 1351 or greater) Type M cassette and new Type S (Lot#1345 or greater) parameters.
- Removed auto-start of test after sample loading period (cancels out now).
- Improved Type S SPM resolution.
- Vacuum ramping for better handling of stickier/aggregated samples.
- ECC re-scale bug fix
- New Gain app for improved system gain tuning

Important Notes (Please read!):

Units with version 4.0 of the Moxi Z firmware can be upgraded either by Bluetooth (using Orflo’s MoxiChart Software) or through USB (Mac or PC). Units with Firmware versions prior to version 4.0 MUST be updated via Bluetooth (using MoxiChart).

Firmware Update Instructions to v4.4

Version 4.0 units can be identified by the “OS4.0” bitmap on the top right of the Moxi Z **Home** screen (see red box on image to right/top). Alternatively, the version of the firmware can be determined by pressing the **?** **Help** icon on the bottom right of the **Home** screen and pressing the **Next** arrow three times to reach the final home screen. The software version is listed on that screen (see red box on image to right/bottom). Please contact Orflo Technical Support (Tech_support@orflo.com, 855-879-6694, option 1) for any technical inquiries assistance.



Preparation – File Downloads

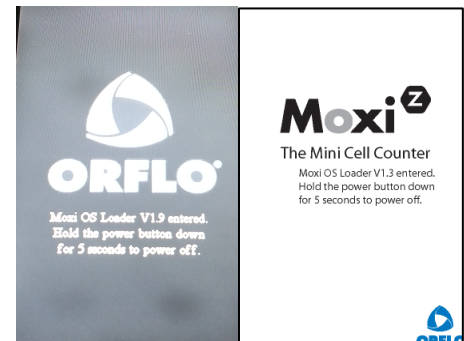
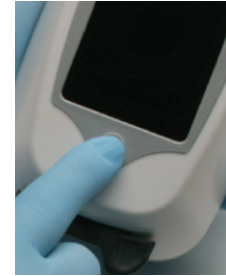
Necessary files for updating the Moxi Z are available at <http://www.orflo.com/v/vspfiles/pages/resources.html>. Click the “Click here to access your software downloads” link under “Instrument Software”.

1. Login into the downloads area:

- **For users who are already registered:** Enter your email address and the registration code that was emailed to you following the registration process.
- **Unregistered users:** Register by clicking the “register” hyperlink at the bottom right of the web page and completing the brief registration process. Once the form is completed, and the “Submit” button is entered, an email with a registration key will be immediately sent to the specified email address.
- Download the necessary files:
 - For USB updates (Only for units that are currently at v4.0, see the “Important Notes” section above):
 - Download the MoxiZ_Firmware_V4.3_USB.zip file (note the download location)
 - Extract the contents of the file on your computer. Five files will extract:
 - BOOTLOAD.COF
 - KERNEL.COF
 - MANIFEST.TXT
 - MOXIPROG.HEX
 - RESOURCE.COF
 - For Bluetooth updates (*Note: A Bluetooth capable computer is required.*):
 - Download and install the latest MoxiChart software appropriate for your computer.
 - Download the “Moxi Z Firmware v4.4.mfw” file (note the download location)

USB Upgrade Instructions (only for Moxi Z units with v.4.0 of the firmware)

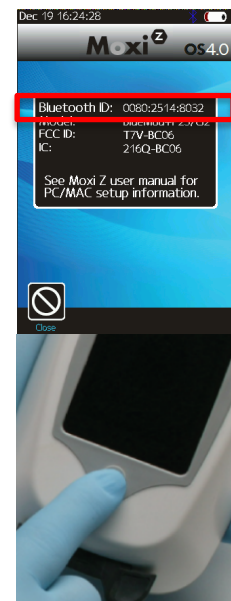
1. Turn off the Moxi Z by pressing the power button (see image to right).
2. Plug the Moxi Z into the computer's USB port via the provided cable. *Note: The cable is part of the AC power adaptor. Unplug the power adaptor to expose the USB connector for the computer.*
3. Put the Moxi Z into a firmware update mode by quickly pressing the power/reset button 4-8 times until the "Moxi OS Loader" text appears at the bottom of the screen. When successful, the white Moxi Z screen or black "Orflo" screen (see images to right/bottom) will display with text underneath the logos that indicates the system is in firmware update mode. If unsuccessful, turn the power off and retry.
4. Verify that the Moxi Z appears as an external drive on your computer using either Finder (Mac's) or Windows Explorer (PC's)
5. Drag (or cut-and-paste) all five extracted download files (BOOTLOAD.COF, KERNEL.COF, MANIFEST.TXT, MOXIPROG.TXT and RESOURCE.COF) onto the Moxi Z drive.
6. The firmware update will proceed automatically when all the files have finished copying. The Moxi Z display will change to show a scrolling blue bar with the update progress of each file. *Note: An unsafe eject message may appear on the computer. This is normal. Please dismiss (e.g. select "OK") the message. **DO NOT SHUT THE SYSTEM OFF DURING THE UPDATE.*** The unit will power off automatically when complete and is ready for use.



Please contact Orflo Technical Support (Tech_support@orflo.com, 855-879-6694, option 1) for any technical inquiries assistance.

Bluetooth Upgrade Instructions (using MoxiChart)

1. Determine the Moxi Z Bluetooth ID by selecting the **Bluetooth** icon from the **Home** screen. The Bluetooth ID is located on the top line of the screen (see red box in image to the right/top). Note the last four digits of the 12 digit Bluetooth ID.
2. Turn off the Moxi Z by pressing the power button (see image to right/bottom).
3. Put the Moxi Z into a firmware update mode by quickly pressing the power/reset button four times. When successful, the white Moxi Z screen or black "Orflo" screen will display with text underneath the logos that indicates the system is in firmware update mode. If unsuccessful, turn the power off and retry.



Firmware Update Instructions to v4.4

4. Open MoxiChart and select **Update Firmware** from the **Tools** menu. Follow the instructions in the installation wizard to complete the firmware update. Briefly:
 - a. When the wizard pops up, click **Next**
 - b. Click **Next** again
 - c. Click **Next** again
 - d. Click **Browse** and select the downloaded “Moxi Z Firmware v4.1.mfw” file
 - e. Click **Next**
 - f. Click **Connect** and click/highlight the Moxi Z Bluetooth ID “BlueMod+P2x/G2 XX:XX” where XX:XX is unique to your Moxi Z unit.
 - g. Click **Select**
 - h. Click **Next**
 - i. Click **Update**
 - j. The firmware update will begin. The Moxi Z screen will change to show a black rectangle with scrolling red lines. **DO NOT SHUT THE UNIT OR THE COMPUTER OFF** during this stage. The unit will automatically power-off when complete.



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