

Installing Firmware on the Advantage360 with the ZMK Engine (KB360-PRO)*

Version: 10/25/2023

Your Advantage360 Pro was built with the latest branch of custom ZMK firmware as of its build date, but Kinesis may release newer versions of firmware to improve performance and the ZMK community release their own updates on GitHub. Not all branches of firmware will support all features and some branches may be experimental.

Each time you customize your Advantage360 Pro layout you will need to download your custom firmware files and flash each file firmware file to the respective module of the keyboard.

For your GitHub Repository (“Repo”) here: github.com/KinesisCorporation/Adv360-Pro-ZMK

Build your custom layout here: KinesisCorporation.github.io/Adv360-Pro-GUI/

Consult the User Manual for detailed instructions.

***Advantage360 SmartSet models have a completely different firmware installation process**

IMPORTANT NOTES – PLEASE READ

1. There are separate Left and Right versions of firmware and installing them on the wrong module will have negative consequences.
2. The same Settings Reset files are used on both Left and Right modules.
3. In many cases it will be may also need to “Reset” both the Left and Right module before installing firmware. If you are moving between branches you should flash the Reset file both branches.
4. The timing of the firmware installation is critical to establish a proper “sync” between the Left and Right modules so follow these directions exactly.
5. Both modules switch have their battery power disabled during the entire update process (toggle the slide switches TOWARDS the USB port), and should only be connected to your PC when indicated below.
6. Never unplug the keyboard or type during an update or reset. Blue LEDs will flash to indicate the installation is in progress.
7. It may be necessary to re-pair your keyboard with your host devices after certain updates/resets.
8. Once you have mastered the basic update process, you can experiment with certain shortcuts to expedite the process.
9. Keystrokes are disabled while in bootloader mode.
10. The timing of the double-click on the Reset button is tricky. If the drive does not mount to your PC after several attempts, or you get an error message on your PC, please contact Kinesis.

To update the firmware, perform the following steps:

1. Obtain a set of valid left and right Advantage360 Pro firmware files (“.uf2” files) from the Actions tab of your GitHub Repo, or from the Kinesis website and take note of the “Branch” number (1.0, 2.0, or 3.0). Kinesis will make one or more “Factory Default” versions of firmware

available at the URL below for troubleshooting or simply reverting back to the base firmware/layout as of a certain production date.

<https://kinesis-ergo.com/support/kb360pro/#firmware-updates>

2. Obtain the Settings Reset for the branch you will be installing. If you are migrating between branches then you will need to also obtain the Settings Reset file for the branch you will be overwriting.

<https://kinesis-ergo.com/support/kb360pro/#firmware-updates>

3. Disconnect both modules from your PC and turn off their power using the slide switches.
4. Connect the Left module to your PC using the USB-C cable and use a paper clip to double-click the Reset Button to enter Bootloader mode. The “ADV360” drive should mount to your PC and the LEDs will go green.
5. Copy and Paste the appropriate Settings Reset file to the drive. The LEDs will flash blue and then go green to signal completion. Repeat the process with the other Settings Reset file if moving between branches. Once the LEDs are green, disconnect the Left module from your PC and leave it powered off.
6. Connect the Right module to your PC using the USB-C cable and use a paper clip to double-click the Reset Button to enter Bootloader mode. The “ADV360” drive should mount to your PC and the LEDs will go green.
7. Copy and Paste the appropriate Settings Reset file to the drive. The LEDs will flash blue and then go green to signal completion. Repeat the process with the other Settings Reset file if moving between branches. Once the LEDs are green, disconnect the Right module from your PC and leave it powered off. *Note: The keyboard has now been fully erased and is ready to receive new firmware*
8. Reconnect the Left module to your PC using the USB-C cable .The “ADV360” drive should automatically mount to your PC and the LEDs will go green.
9. Copy and Paste the desired firmware file “left.uf2” to the drive. The LEDs will flash blue and then resume normal operation when complete (i.e., the Profile LED will start flashing white). Perform a quick test to ensure key strokes from the Left module are outputting normally. If the Left module is not working, go back and start again.
10. For this step, it is necessary to ensure that the Left Module remains connected to the PC and does not go to sleep (30 second timer) so work quickly and without interruption. You can buy more time with the sleep timer by simply tapping the Caps Lock key.
11. Reconnect the Right module to your PC using the USB-C cable. The “ADV360” drive should automatically mount to your PC and the LEDs will go green. Copy and Paste the matching firmware file “right.uf2” to the drive. The LEDs will flash blue temporarily. Once the update has been installed you may briefly see flashing red lights while the Right module looks for the Left. In a matter of a few seconds, the Right and Left modules should “sync” and the Right LEDs will resume normal operation (Num Lock and Scroll Lock). Perform a quick test to ensure key strokes from both the Left and Right module are outputting normally. It may be necessary to unplug and re-plug the keyboard one or two times at this point.



If this process did not work for you, it is necessary to start from scratch and go all the way back to Step 1.