

Advantage360



## USER'S MANUAL

### *SmartSet Programming Engine*



KB360

Proudly designed and hand-assembled in the USA since 1992

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## Kinesis® Advantage360™ Keyboard with the SmartSet™ Programming Engine

Keyboard models covered by this manual include all KB360 series keyboards (KB360-xxx). Some features may require a firmware upgrade. Not all features supported on all models. This manual does not cover setup and features for the Advantage360 Professional keyboard which features the ZMK programming engine.

July 5, 2022 Edition

This manual covers features included up through the firmware version 1.0.9. and Bootloader 1.3

If you have an earlier version of firmware, not all features described in this manual may be supported. To download the latest firmware here:

[kinesis.com/support/kb360/#firmware-updates](https://kinesis.com/support/kb360/#firmware-updates)

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## **FCC Radio Frequency Interference Statement**

### **Note**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced radio/TV technician for help

### **Warning**

To assure continued FCC compliance, the user must use only shielded interfacing cables when connecting to computer or peripheral. Also, any unauthorized changes or modifications to this equipment would void the user's authority to operate.

## **INDUSTRY CANADA COMPLIANCE STATEMENT**

This Class B digital apparatus meets all requirements of the Canadian Interference-causing Equipment Regulations.

Cet Appareil numerique de la classe B respecte toutes les exigences du Reglement sur le material brouilleur du Canada.

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# 1.0 Read Me First

## 1.1 Health and Safety Warning

Continuous use of any keyboard may cause aches, pains, or more serious cumulative trauma disorders such as tendinitis and carpal tunnel syndrome, or other repetitive strain disorders.

- Exercise good judgement in placing reasonable limits on your typing time every day.
- Follow established guidelines for computer and workstation setup (see Appendix 13.3).
- Maintain a relaxed keying posture and use a light touch to press the keys.

## Keyboard is not a medical treatment

This keyboard is not a substitute for appropriate medical treatment! If any information in this guide appears to contradict your health care professional's advice, please follow your health care professional's advice.

## Establish realistic expectations

- Ensure that you take reasonable rest breaks from typing during the course of the day.
- At the first sign of stress-related injury from keyboard use (aching, numbness, or tingling of the arms, wrists, or hands), consult your health care professional.

## No warranty of injury prevention or cure

Kinesis Corporation bases its product designs on research, proven features, and user evaluations. However, because of the complex set of factors believed to contribute to computer-related injuries, the company can make no warranty that its products will prevent or cure any ailment. Your risk of injury may be affected by workstation design, posture, time without breaks, type of work, non-work activities and individual physiology.

If you currently have an injury to your hands or arms, or have had such an injury in the past, it is important that you have realistic expectations of your keyboard. You should not expect an immediate improvement in your physical condition simply because you are using a new keyboard. Your physical trauma has built up over months or years, and it may take weeks before you notice a difference. It is normal to feel some new fatigue or discomfort as you adapt to your Kinesis keyboard.

## 1.2 Preserving Your Warranty Rights

Kinesis does not require any product registration to obtain warranty benefits, but you will need your purchase receipt in the event you need a warranty repair.

## 1.3 Quick Start Guide

If you are eager to get started, please consult the included Quick Start Guide. The Quick Start Guide can also be downloaded from the Advantage360 Resources Page. Consult this full manual for advanced features.

Resource Page: [kinesis.com/support/kb360/](http://kinesis.com/support/kb360/)

## 1.4 Read This User's Manual

Even if you don't normally read manuals or you are a long-time user of Kinesis Contoured keyboards, Kinesis strongly encourages you to review this entire manual. The Advantage360 is a fully-programmable keyboard with powerful tools and features, many of which are brand new. If you unknowingly execute a programming shortcut or key combination, you could inadvertently alter the layout of your keyboard, which could have unintended consequences for your work and might necessitate a hard reset of the keyboard.

## 2.0 Overview

### 2.1 Geometry and Key Groupings

If you are new to a Kinesis Contoured keyboard, the first thing you will notice about the Advantage360™ keyboard is its sculpted shape, designed to conform to the natural postures and shapes of your hands—which reduces the physical demands of typing. Many have imitated this striking design but there is no substitute for its unique three-dimensional shape. While the Advantage360 looks very different from other keyboards, you'll find that making the transition is actually quite easy because of its intuitive form factor, thoughtful key layout, and its unparalleled electronic configurability. The Advantage360 keyboard features distinctive key groupings not found on traditional or “natural style” keyboards.

### 2.2 Keyboard Diagram



### 2.2 Ergonomic Design and Features

The design of the Advantage360 keyboard traces its roots to the very first Contoured™ keyboard introduced by Kinesis in 1992. The original objective was to develop a design informed by generally accepted ergonomic design principles to maximize comfort and productivity, and minimize the major health risk-factors associated with typing. Every aspect of the form factor was thoroughly researched and tested.

Learn More: [kinesis.com/solutions/keyboard-risk-factors/](https://kinesis.com/solutions/keyboard-risk-factors/)

## Fully split design

The two independent modules of the 360 allow you to position the keyboard so you can type with straight wrists to reduce abduction and ulnar deviation which can lead to repetitive strain injuries such as carpal tunnel syndrome and tendonitis. Straight wrists can be achieved by a mixture of sliding the modules apart to approximately shoulder-width and/or rotating the modules outward. We recommend starting with the modules close together and gradually moving them apart until you find your sweet spot. *Note: If you need more separation than the included link cable provides, you can purchase your own 3rd party USB-C to USB-C cable as a substitute.*

## Bridge Connector

If you aren't ready for full separation snap the included Bridge Connector into the base to recreate the separation of the one-piece contoured keyboard. *Note: The Bridge Connector is NOT designed to bear the weight of the keyboard, it's a simple spacer for desktop use. So do not pick the keyboard up by one module with the Bridge attached.*



## Integrated palm supports

The Advantage360 features integrated palm supports and an all-new cushioned palm pad (now sold separately). Together these enhance comfort and reduce stressful extension and pressure on the wrist. The palm supports provide a place to rest the hands while they are not actively keying, though many users prefer to rest while typing to take weight off the neck and shoulders. You should not expect to be able to reach all the keys without rocking your hands forward at times.



## Separate thumb clusters

The thumb clusters feature commonly used keys such as Enter, Space, Backspace, and Delete. Modifier keys such as Control, Alt, Windows/Command. By moving these commonly used keys to the thumbs, the Advantage360 redistributes the workload from relatively weaker and overused pinkies, to stronger thumbs.



## Vertical (orthogonal) key layout

Unlike conventional "staggered" keyboards, the 360's keys are arranged in vertical columns to shorten reaches, reduce strain, and to reflect the natural range motion of your fingers.



## Concave keywells

The keywells are concave to reduce hand and finger extension. Hands rest in a natural, relaxed position, with the fingers curled down to the keys. Keycap heights are varied to match the different lengths of your fingers. Conventional flat keyboards cause longer fingers to arch up over the keys and results in extension of the muscles and tendons in your hands, which causes rapid fatigue.



## Low-force mechanical key switches

The keyboard features full-travel mechanical switches known for their reliability and durability. The standard brown stem switches feature "tactile feedback" which is a slightly elevated force around the midpoint of the stroke of the key which lets you know the switch is about to be activated.



## Adjustable Tenting

When the keyboard is in its lowest position your thumbs are approximately twenty degrees higher than pinky fingers to reduce forearm pronation and static muscle tension without compromising usability. Use the buttons on the underside of the keyboard to adjust between three available heights to find the setting that feels most natural for your body. We recommend starting on the lowest setting and working your way up until you find the sweet spot.



## LED Indicator Lights

There are 3 RGB light emitting diodes (LEDs) above each thumb cluster. The LEDs are used to indicate the status of the keyboard. These LEDs can be custom programmed for both Color and Function via the SmartSet App. Factory default functions are listed below. Refer to Section 5.0 for more information on the 10 Profiles and 5 Layers. *Note: By default the keyboard is in Profile 0 and the Base Layer so the Profile LED and Layer LED are both off.*

### Left Key Module



Cap Lock (On/Off)



Profile (0 thru 9)



Layer (Base, Kp, Fn1, Fn2, Fn3)

### Right Key Module



Num Lock (On/Off)



Scroll Lock (On/Off)



Layer (Base, Kp, Fn1, Fn2, Fn3)

### Default LED Light Color

Layers> Base: Off, Kp: Blue, Fn1: White, Fn2: Green, Fn3: Red

Profiles> 0: Off, 1: White, 2: Cyan, 3: Green, 4: Red, 5: Blue, 6: Yellow, 7: Orange, 8: Green-Blue, 9: Pink

## 2.4 Full Programmability

Kinesis Contoured keyboards have long featured a fully-programmable architecture that allowed users to record macros, remap keys, and create custom layouts and settings. The Advantage360 utilizes the latest version of Kinesis' revolutionary SmartSet™ Programming Engine, which makes the Advantage360 even more powerful and versatile than its predecessors.

### The SmartSet Engine

SmartSet, Kinesis's driverless programming engine, allows users to store custom keyboard layouts and settings on an onboard flash memory drive (aka the "v-Drive") and reprogram the keyboard quickly and easily using "onboard programming shortcuts". Keyboard configuration files are saved as "simple text" files which allow them to be edited from virtually any operating system.

### Onboard Programming Shortcuts

Customizing the keyboard is accomplished quickly and easily using a variety of onboard programming shortcuts. Shortcuts are triggered with the dedicated SmartSet Key (Gear icon) used in conjunction with other keys pressed in a special combination to perform the desired customization. Programming can be disabled with the new Program Lock command to eliminate the risk of "inadvertent programming." See Section 5.0. *Note: Certain shortcuts were designed to be input with two hands, do not contort your hands to enter a shortcut.*



### Built-in Bootloader

To stay up-to-date with the latest releases from Kinesis and ensure compatibility with the newest operating system versions. The bootloader allows you to update the firmware on your Advantage360 in seconds using a firmware file downloaded from our website and special key combination. See Section 7.0 for instructions.

## 2.5 Genuine Kinesis Accessories

Kinesis offers a number of accessories designed to work with your Advantage360 to increase your comfort or customize the keyboard. Please visit the Kinesis Store, Amazon, or one of authorized resellers to learn more.

## 3.0 Installation and Setup

### 3.1 In the Box

- Quick Start Guide
- Link Cable (USB-C to USB-C)
- Main Cable (USB-C to USB-A)
- Additional keycaps for customization
- Keycap removal tool
- Bridge Connector

### 3.2 Compatibility

The Advantage360 keyboard is a multimedia USB keyboard that uses generic drivers provided by the operating system, so no special drivers or software is required. Therefore it is “plug-and-play” with all operating systems that support full-featured USB keyboards.

#### Known compatibility issues

The Advantage360 is designed to be connected directly to your PC. Connecting the keyboard to certain intermediary devices such as KVM (keyboard-video-mouse) switches, IP telephony devices, and USB hubs can cause diminished functionality.

If you currently use keyboard customization software (e.g., *Autohotkey*, *Karabiner*, etc.), that software may create unpredictable behavior and diminished performance when interacting with the SmartSet Engine.

### 3.3 Connecting Your Keyboard for the First Time

1). Connect the two key modules using the Link Cable. The Link Cable must be connected to the left module’s right port and the right module’s left port.



2). Then connect the right module to the PC using the Main Cable



3). The keyboard will automatically install itself. When the auto-installation is completed, you should see a “device is ready to use” notice on your screen. *Note: Mac Users may be prompted with the Keyboard Setup Assistant. Follow the on-screen prompts to complete the Setup.*

4). You can now attach the magnetic palm pads or connect a foot pedal (sold separately)

## 4.0 Getting Started

### 4.1 Positioning and Work Area Setup

Thanks to its separate key modules, unique thumb clusters, and built in tenting, the Advantage360 forces you to adopt an optimal typing position when you place your fingers over the home row. The Advantage360 uses the conventional home row keys (ASDF / JKL;). The home row keys feature special, cupped keycaps designed to let you quickly find the home row without taking your eyes off of the screen. Despite the unique architecture of the Advantage360, the finger you use to press each alphanumeric key is the same finger you would use on a traditional keyboard.

Position your fingers on the color-contrasted home row and relax your right thumb over the Space Key and your left thumb over Backspace. Raise your palms slightly above the palm rests while typing. This position provides the necessary mobility for your hands so that you can comfortably reach all the keys. *Note: Some users may need to move their arms slightly while typing to reach some distant keys.*

### Workstation configuration

Since the Advantage360 keyboard is taller than a traditional keyboard and features integrated palm supports, it may be necessary to adjust your workstation to achieve a proper typing posture with the Advantage360. Kinesis recommends the use of an adjustable keyboard tray for optimal placement.

Learn More: [kinesis.com/solutions/ergonomic-resources/](https://kinesis.com/solutions/ergonomic-resources/)

### 4.2 Adaptation Guidelines

Many experienced typists overestimate the amount of time it will take them to adapt to the key layout. By following these guidelines you can make adaptation fast and easy, regardless of your age or experience.

#### When to begin using your new keyboard

Consider beginning to use your Advantage360 keyboard after you have taken a break from traditional typing— perhaps after a weekend or a vacation, or at the very least first thing in the morning. This gives your body a chance to rest and make a fresh start. Trying to learn a new keyboard layout can be frustrating, and if you are working long hours or under a deadline that can make matters worse. Do not overtax yourself early on, and if you have not been using a keyboard regularly, build up slowly. Even if you are symptom free, you are still susceptible to injury. Do not dramatically increase your keyboard usage without first consulting your health care professional.

#### Adapting your “kinesthetic sense”

If you are already a touch typist, adapting to the Kinesis Contoured keyboard does not require “re-learning” to type in the traditional sense. You just need to adapt your existing muscle memory or kinesthetic sense.

#### Guidelines for using your thumbs

Avoid stretching your thumbs to reach the furthest keys in the thumb clusters. Instead move your hands and arms slightly, being careful to stay relaxed, and keep your wrists straight. If your thumbs are especially sensitive, consider using your index fingers instead of your thumbs to activate these keys. You may want to speak with your health care professional about these options. If pain persists for more than several days, stop using the Advantage360 keyboard and contact your health care professional for advice.

#### Typing with long fingernails

Typists with long fingernails (i.e., greater than 1/4”) may have difficulty with the curvature of the keywells.

#### Typical adaptation period

You will need a little time to adjust to the new shape of the Advantage360 keyboard. Laboratory studies and real-world testing show that most new users are productive (i.e., 80% of full speed) within the first few hours of starting to use an Advantage360 keyboard. Full speed is typically achieved gradually within 3-5 days but

can take up to 2-4 weeks with some users for a few keys. We recommend not switching back to a traditional keyboard during this initial adaptation period as that can slow your adaptation.

### **Initial awkwardness, fatigue, and even discomfort is possible**

Some users report awkwardness when first using a Contoured keyboard. Mild fatigue and discomfort may occur while you adjust to new typing and resting postures. If you experience severe pain, or symptoms persist for more than a few days, stop using the keyboard and see Section 4.3.

### **After Adaptation**

Once you have adapted to the Advantage360, you should have no problem switching back to a traditional keyboard (though you may feel slow). Many users report an increase in typing speed because of the efficiencies inherent in the contoured design and the fact that it encourages you to use proper typing form.

### **4.3 If You Are Injured**

The Advantage360 keyboard is designed to reduce the physical stress that all keyboard users experience—whether or not they are injured. Ergonomic keyboards are not medical treatments, and no keyboard can be guaranteed to cure injuries or prevent the occurrence of injuries. Always consult your health care professional if you notice discomfort or other physical problems when you use your computer.

### **Have you been diagnosed with RSI or CTD?**

Have you ever been diagnosed with tendinitis, carpal tunnel syndromes, or some other form of repetitive strain injury (“RSI”), or cumulative trauma disorder (“CTD”)? If so, you should use special care when using a computer, regardless of your keyboard. Even if you simply experience modest discomfort when using a traditional keyboard you should use reasonable care when typing. To achieve the maximum ergonomic benefits when using the Advantage360 keyboard, it is important that you arrange your workstation in accordance with generally accepted ergonomic standards and take frequent “micro” breaks. For individuals with existing RSI conditions it may be advisable work with your health care provider to develop an adaptation schedule.

### **Establish realistic expectations**

If you currently have an injury to your hands or arms, or have had such an injury in the past, it is important that you have realistic expectations. You should not expect an immediate improvement in your physical condition simply by switching to the Advantage360, or any ergonomic keyboard for that matter. Your physical trauma has built up over months or years, and it may take a number of weeks before you notice a difference. At first, you may feel some new fatigue or discomfort as you adapt to the Advantage360.

### **A keyboard is not a medical treatment!**

The Advantage360 is not a medical treatment nor a substitute for appropriate medical treatment. If any information in this Manual contradicts the advice you have received from a health care professional, please follow your health care professional’s instructions.

### **If your thumbs are sensitive**

The Advantage360 keyboard is designed for increased thumb usage compared to a traditional keyboard which places more strain on the little fingers. Some new Kinesis contoured keyboard users initially experience fatigue or discomfort as their thumbs adapt to the increased workload. If you have a preexisting thumb injury, be especially careful to move your hands and arms when reaching for thumb keys and consider customizing your layout to reduce thumb workload.

## 5.0 Basic Keyboard Use

The default layout is a great place to start to learn the Advantage360. The keyboard comes pre-configured for QWERTY typing on a Windows PC but it can be reconfigured for alternate layouts and operating systems very easily using the SmartSet App and by rearranging any number of keycaps.

### 5.1 Profile 0 Base Layout

The Advantage360 has ten available Profiles. Profiles 1-9 are fully programmable, but “Profile 0” is non-programmable to prevent novice users from inadvertently reconfiguring the keyboard. The Advantage360 ships from the factory with Profile 0 loaded. If you are happy with the keyboard’s “base” layout and don’t plan to make any changes, then Profile 0 is perfect for you. If you would like to custom program your keyboard you’ll need to load one of the other 9 Profiles using the onboard shortcut or the SmartSet App.

### 5.2 Multi-Layer Layouts

The Advantage360 is a multi-layer keyboard which means that each physical key on the keyboard can perform multiple actions. The default layout in each Profile features 3 easily accessible layers: The primary “Base Layer”, and two secondary layers (“Fn” and “Keypad”) which offer auxiliary key actions. The user can use the 3 dedicated layer keys in the default layout to move between the layers as needed. Most keys perform the same action in all 3 layers by default, but keys that have unique actions in the auxiliary layers have additional legends on the front of the keycap. Navigating layers can be intimidating at first but with practice it can actually boost your productivity and improve your comfort by keeping your fingers on the home row to access the Function keys or Keypad.

*Note: The 9 programmable Profiles (1-9) feature 2 additional layers (the Fn2 Layer and the Fn3 Layer) which can be configured via the SmartSet App for power users..*

*Note: The location and behavior of the layer access keys can be customized in the SmartSet App.*

### 5.3 Function Keys (F1 - F12) reside in the new Fn Layer

Long time contoured keyboard users will note that we have eliminated the 18 half-size function keys resulting in a more compact layout. The Function Key actions now reside in the new “Fn Layer” as secondary actions for the traditional number row. The Fn Layer can be accessed by pressing either of the two new “pinky” keys labeled with “fn”. By default these two Fn Layer Keys momentarily shift the keyboard to the Fn Layer. So to output F1, you simply press and hold either of the Fn Layer Keys and then tap the “equals” keys. When you release the Fn Layer Key you return to the Base Layer and the primary key actions.



The Fn layer features 12 unique key actions (F1-F12) legended on the front left edge of the keycaps.

### 5.4 Numeric 10 Key resides in the Keypad Layer

The new full-size Keypad Layer Key toggles the keyboard into the Keypad Layer where the standard numeric 10-key actions are found on the right module. Unlike the Fn Layer Keys, the Keypad toggles layers so you tap it once to move in the Keypad Layer, and tap it again to move back to the Base Layer.

The Keypad layer features 18 unique key actions on the right module (traditional 10 key) legended on the front right edge of the keycaps.

### 5.5 Four new Hotkeys

The Advantage360 features 4 keys in the middle of the keyboard labeled 1-4 inside of a circle. By default these keys are blank so don’t be disappointed if they don’t produce any action at first. These four keys can be programmed to perform any single key action, mouse click, macro and more. And a different action can be assigned in each layer. Use them in whatever way you see fit, or simply ignore them.



## 5.6 Default Layout Map

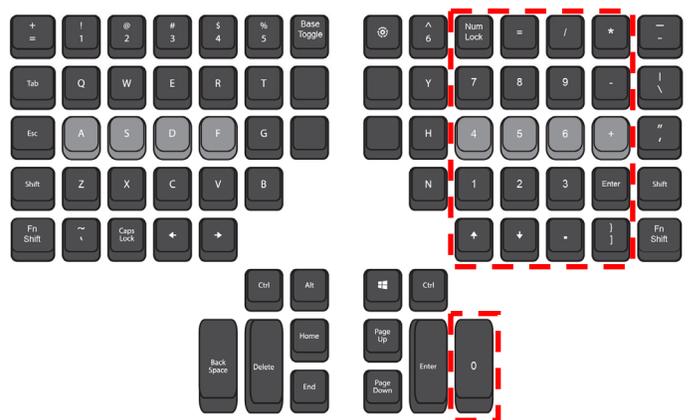
### Base Layer



### Function Layers (Fn1, Fn2, Fn3)



### Keypad Layer



## 6.0 Customizing your Keyboard

The SmartSet Programming Engine provides a number of easy-to-use productivity tools. Even those who have never used a programmable keyboard can easily learn and benefit from these. There are 3 ways to customize your keyboard:

1. Onboard Programming using shortcuts
2. The SmartSet App GUI (for Windows and Mac)
3. Direct Programming of .txt files on the v-Drive (for Power Users only, download the separate guide)

View the list of support actions: [kinesis.com/support/kb360/#manuals](https://kinesis.com/support/kb360/#manuals)

### Onboard Programming

All onboard programming begins with the dedicated SmartSet Key (Gear Icon, right module). Shortcuts are triggered using the SmartSet Key and one or more other keys. The four most commonly-used onboard shortcuts reside on the Hotkeys and are legended with the gear icon on the front face of the key. To activate these shortcuts, press and hold the SmartSet Key and then tap the corresponding Hotkey. The LED indicators will flash in response to a successful onboard shortcut.

***Note: The keyboard ships in Profile 0 which is non-programmable to protect novice users from inadvertent programming. To remap keys or record macros you must first load one of the other 9 Profiles (See Section 6.5).***

*Caution: There are variety of additional, unlabeled shortcuts. Please read this manual and be mindful whenever using the SmartSet Key to avoid inadvertent programming.*

### 6.1 Onboard Remapping (SmartSet + Hotkey 1)

The Advantage360 lets you customize the key layout in each of the 9 programmable Profiles by moving (aka “remapping”) key actions from one location to another. You can remap one or two critical keys to a more convenient location, or remap dozens of keys to suit your particular workflow or use an alternate layout like Dvorak (*we recommend using the SmartSet App if you need to move a lot of keys*). Every key except for the SmartSet key can be reprogrammed in each of the 5 layers.

#### Remap Process

To remap a key follow the steps below.

1. Hold SmartSet and tap Hotkey 1 to enter “Remap Mode”. The LEDs will flash rapidly.
2. Tap the “Source Key” (i.e., the action you want to duplicate). The LEDs will flash slowly.
3. Tap the “Destination Key” (i.e., the physical key you want to perform the previously selected action)

*Notes: Remapping moves only one key action at a time. To swap two keys you must use the shortcut to re-enter Remap mode and perform the inverse operation. While in Remap Mode the keyboard will revert to the factory default layout so that you never lose a key.*

#### Remapping between layers

Each of the 5 layers are separately programmable. When a key is remapped, it is only remapped in the active layer. You can navigate between the layers during onboard remapping using the Layer Access Keys (Fn and Kp) to move a key to a different layer.

*Note: The default Layer Access Keys cannot be reprogrammed using the onboard remapping. Double tap the two Fn keys to return to the top layer after remapping if necessary.*

## 6.2 Onboard Macro recording (SmartSet + Hotkey 2)

A macro is any string of characters or key actions that are triggered by a single key press. Macros are powerful productivity tools that allow users to save time and eliminate repetitive key strokes or awkward key combinations. The Advantage360 can be programmed to playback macros by tapping either a single trigger key, or key combo using a primary trigger key in combination with one or more modifier keys (e.g., Shift, Ctrl, Alt, and Windows/Command).

*Notes: Left and right modifier keys are treated separately in triggering macros so “Left Shift + A” can trigger one macro and “Right Shift + A” can trigger a different macro. The default layer shifting keys cannot trigger a macro via onboard programming, but can trigger a macro via the SmartSet App when paired with a co-trigger.*

### The key action is the trigger

Unlike on previous Advantage keyboards, the macro trigger key is represented by the trigger action, not the physical position key to give users more flexibility in assignment and playback. For example, if you record a macro to be triggered by the “Z” key, that macro will fire anytime you tap a key that has the Z action assigned in the appropriate layer.

### Size limits on macros

Individual macros typically can comprise up ~300 individual keystrokes and dozens of macros can be saved each Profile. Once you reach the macro size limit, the keyboard will stop recording.

### Recording a Macro

To program a macro, open the application in which the macro will play correctly, then follow the steps below.

1. Hold SmartSet and tap Hotkey 2 to enter “Macro Mode.” The LEDs will flash rapidly.
2. Tap the “macro trigger” key or key combination. If you use a combination, hold the modifier(s) first, then press the trigger key, then release all keys. The LEDs will now flash slowly.
3. Type your macro contents.
4. When you are finished recording your macro, tap SmartSet to exit Program Macro Mode.

*Note: When recording a macro any remapping you have done will be active, but you cannot “daisy chain” or embed one macro within another.*

### Every keystroke is recorded

As you record a macro, the Advantage360 records the exact keystrokes you type. If you make a mistake while recording a macro, you *can* use corrective keystrokes, but this will slow playback slightly and for long macros, it may also reduce the maximum macro size to below 300 characters. So if you make lots of mistakes while recording a macro, consider re-starting the recording process. Alternatively, you can edit a “sloppy” macro in the SmartSet App.

### Playback speed and performance

Macro recording only logs the key strokes not timing. By default, the macro will play back at an “average” speed with no delays between keystrokes, but the playback speed can be customized in the SmartSet. All computers respond differently to macros so complex macros may require some fine tuning.

### Erasing a macro

To erase a macro simply enter Macro Mode in the corresponding Profile, press the corresponding trigger key (s) for the macro you wish to erase, and then tap the SmartSet Key again to clear the macro from that Profile.

### Other keystrokes are not blocked during macro playback

While a macro is being played back the keyboard can still send key strokes that will interrupt playback. If you are using especially long macros or want to execute a macro in rapid succession with other keystrokes, we recommend increasing your macro playback speed.

### Using the Windows key as co-trigger

Because of the special way in which the “Windows Key” is treated by the Windows operating system and differences between processor speed and Windows versions, experimenting with playback speed may be needed if you use lwin or rwin as the only modifier to help trigger a macro in combination with a non-modifier key. There should be no problem if Win plus another modifier are combined with a macro trigger key.

### Macros take priority

If macro is assigned to a single trigger, macro playback will take priority over the underlying key action.

## 6.3 Accessing the v-Drive (SmartSet + Hotkey 3)

The Advantage360 contains a virtual flash drive named “Adv360” where the all keyboard’s configuration files are stored. The “v-Drive” is normally hidden from your computer and can be ignored access for basic keyboard usage or any of the onboard programming shortcuts.

There are four reasons to access the v-Drive: 1) to use the SmartSet App for Windows or Mac, 2) to Direct Program your keyboard, 3) to perform a firmware update, or 4) troubleshooting. The v-Drive should be closed except when performing the above operations.

### Onboard shortcut to open (aka “mount”) the v-Drive:

Hold the SmartSet Key and tap Hotkey 3. The Indicator LEDs will flash 4 times to signal the v-Drive is opening and will flash blue while the v-Drive is open to indicate the keyboard is in temporary state.

### Finding the v-Drive on your computer

The v-Drive is always named “Adv360” but its location will vary depending on your operating system

- Windows: The v-Drive will usually “pop-up” automatically in FILE EXPLORER under “This PC”
- Mac: Look at the DESKTOP or in FINDER under “Devices”
- Android: Look in COMPUTER SETTINGS
- Chrome: Look in FILES
- Linux: Look in MY COMPUTER

### Programming disabled while v-Drive is open

All non-essential onboard shortcuts are disabled while the v-Drive is open to prevent drive corruption.

### Contents of the v-Drive

- Firmware Folder: Contains the “default.upd” firmware file for a firmware reset and any firmware update files you may place there
- Layout Folder: Contains the 9 “layout\_.txt” files (key actions and macros) corresponding to each of the 9 programmable Profiles
- Lighting Folder; Contains the 9 “led\_.txt” (Indicator LED function and color) corresponding to each of the 9 programmable Profiles
- Settings Folder: Contains the current global keyboard settings file called “settings.txt” (do not edit)

### Simple text configuration files

All of the files (other than firmware files) found on the v-Drive use the .txt format which can be opened with any text editing program (e.g., Notepad, Microsoft Word, etc.).

### Junk files created by macOS

Certain newer versions of macOS may create “junk” files on the v-Drive if you are manually editing keyboard configuration files. Those junk files can be safely ignored or deleted.

### Closing the v-Drive

Before closing the v-Drive, be sure to save any .txt files that have been edited if you would like those changes to be implemented. **Always “Eject” the v-Drive from you Operating System (right-click the mouse in Windows) before closing the v-Drive using the onboard shortcut (SmartSet + Hotkey 3).** The Indicator LEDs will flash 2 times to signal the v-Drive is closing.

The new SmartSet App for Windows is designed to eject the v-Drive for you provided you follow the on-screen prompts.

If you get a message from your operating system that the device is busy and cannot eject, be sure all v-Drive files are closed and click on the top level of the v-Drive, then try again. You can also unplug the keyboard to close the v-Drive instead of using the shortcut.

*Note: macOS will frequently produce an error after disconnecting the v-Drive but this can be safely ignored.*

#### **6.4 Refresh Shortcut (SmartSet + Hotkey 4)**

Changes made via the SmartSet App and/or Direct Programming do not go into effect automatically. To “push” your changes to the keyboard (after saving changes in the App and following the proper eject protocol) you can either close the v-Drive or use the Refresh Shortcut by holding the SmartSet Key and then tapping Hotkey 4. Refresh allows you to keep the v-Drive open to make further changes.

#### **6.5 Load one of the 10 Profiles (SmartSet + 0-9)**

Use the SmartSet Key in conjunction with the corresponding number in the number row to directly load any of the 10 Profiles on-the-fly.

#### **6.6 Program Lock/Unlock (SmartSet + Right Ctrl+ L)**

If you are worried about accidentally reprogramming your keyboard, we recommend using the above shortcut to “lock” your keyboard which will disable all onboard programming shortcuts. Use the same shortcut to unlock the keyboard if you wish to do any onboard programming.

#### **6.7 Status Report (SmartSet + Right Ctrl + Right Shift + /)**

The Status Report is a handy feature which allows Advantage360 users to quickly see the current keyboard settings. This section briefly explains how to interpret the Status Report.

***Important Note: Before running a Status Report, open a text editing program so that the keyboard can “print” the Status Report to the screen.***

*Model:* Indicates the model name of the keyboard.

*Profile:* Indicates which of the 10 Profiles is active

*Remaps:* Indicates the number of custom key remaps that have been saved to the active Profile

*Macros:* Indicates the number of macros that have been saved to the active Profile

*NKRO:* Indicates whether N-key rollover mode is active

*Firmware:* Indicates which versions of firmware are running on each key module

```
Advantage 360 US
Profile 1
Remaps 1
Macros 0
NKRO Off
L Firmware 1.0.0
R Firmware 1.0.0
Bootloader 1.3
www.kinesis.com/support/kb360
```

*Bootloader:* Indicates which version of bootloader is running on the keyboard

#### **6.8 Soft Reset (SmartSet + Right Ctrl + Ent)**

Soft Reset erases all macros and remaps from the currently active Profile.

#### **6.9 Hard Reset (SmartSet + Right Ctrl + Enter while plugging in keyboard)**

A Hard Reset erases all of the remaps and macros saved to all 9 Profiles and restores all keyboard settings to their factory defaults. To initiate a Hard Reset, hold the SmartSet Key, Right Ctrl and Enter while plugging the keyboard. Once Indicator LEDs start to flash you can release the keys.

## 6.10 The SmartSet App for Windows and Mac

The Advantage360 features a host of customization options that cannot be accessed through onboard programming. Users can download the SmartSet App from the link below and run it from their desktop after opening the v-Drive.

[kinesis.com/support/kb360/#smartset](https://kinesis.com/support/kb360/#smartset)



## 6.11 Direct Programming

For power users who would prefer to customize their keyboard layouts directly via the .txt configuration files, please download the Direct Programming Guide at the link below for a full list of tokens, syntax rules, and examples.

[kinesis.com/support/kb360/#manuals](https://kinesis.com/support/kb360/#manuals)

## 6.12 Media Keys, Mouse Clicks/ Movements and More (SmartSet App and Direct Programming only)

The Advantage360 supports a wide array of keyboard actions. If there is a key action that is not present in the default layout, you can likely find it in the SmartSet App and assign it to any key in any layer you choose, or program it directly using the Kinesis token.

## 6.13 Tap and Hold (SmartSet App and Direct Programming only)

The Advantage360 supports a new feature that allows you to assign two distinct actions to a single key where the output depends on how long you hold the key. Assign one action for quick taps, and another action for longer holds. You can even set the timing delay yourself.

Note: Tap and Hold may not be suitable for all desired applications because of the inherent timing delays (e.g., alphanumeric keys are not recommended).

## 6.14 Multi-modifiers (SmartSet App and Direct Programming only)

The Advantage360 supports the ability to have one single key act as a compound modifier key to make multi-key shortcuts even easier. Select one or more modifiers from Shift, Windows/Command, Alt, and Ctrl.

## 6.15 Indicator LED Programming

Each of the Indicator LEDs is fully programmable. You can customize the color and function of each LED to make it easy to know which Profile and Layer you are in, create a custom color scheme based on your personal preferences, or just disable LEDs that aren't useful for you.

## 6.16 NKRO Mode (SmartSet + Right Ctrl + Right Shift + N)

By default a standard USB keyboard can only send 6 simultaneous key-strokes to the PC. For certain users and applications it may be desirable to send more simultaneous keystrokes than that (i.e., chording). Those users can activate N-Key Rollover Mode (aka NKRO) to support unlimited simultaneous key presses using the onboard shortcut SmartSet + Ctrl + N. Disable NKRO by re-plugging the keyboard.

*Note: NKRO mode is automatically deactivated each time the v-Drive is open or the keyboard is unplugged.*

## 7.0 Firmware Update

The SmartSet technology in your Advantage360 allows you to update the keyboard's firmware to stay up-to-date with the latest releases from Kinesis. Your Advantage360 keyboard comes from the factory with the most up to date fully-vetted version of the firmware as of its build date but Kinesis may at times release new versions of firmware to improve performance and/or compatibility.

To determine which version of firmware is currently installed on your keyboard launch the SmartSet App and click the "Check for Updates" button. You can also open a text editing screen and run a Status Report (SmartSet + Right Shift + Right Ctrl + /) and compare it to the version listed on our website at the link below.

[kinesis.com/support/kb360/#firmware-updates](https://kinesis.com/support/kb360/#firmware-updates)

### 7.1 Firmware Update Process

1. Obtain the appropriate Advantage360 firmware update (".upd" file) from Kinesis tech support or website
2. Open the v-Drive (SmartSet + Hotkey 3)
3. Copy and paste the firmware update file into the "firmware" folder
4. Eject via right-click and close the v-Drive (SmartSet + Hotkey 3)
5. Initiate Firmware Update with the shortcut SmartSet + Right Ctrl + U until you see the Indicator LEDs start to flash. The update will take a full 45 seconds, during which time the keyboard will be inactive and LEDs will flash in sequence on first the right module, and then the left module. **IMPORANT NOTE: DO NOT unplug or type on keyboard until done.**
6. If it is successful, the indicator LEDs will flash green on BOTH sides indicating the keyboard is now ready to use. you can tap the Keypad key to test the keyboard. In some instances it may be necessary to re-plug the keyboard after an update.
7. Run a Status Report or launch the SmartSet App to confirm the new version of firmware was successfully installed.

Note: If you have performed multiple firmware updates, you will need to delete older files "update.upd" files from the firmware subfolder so the keyboard can identify which file you wish to install.

### 7.2 Firmware Recovery (SmartSet + Ctrl + U while plugging in)

In some instances it may be necessary or desirable to install the factory default firmware file to restore the keyboard to its factory default state. Provided the default.upd file has not been deleted from the "firmware" folder on v-Drive you can press and hold SmartSet + Ctrl + U while plugging in the keyboard to trigger.

Continue to hold the keys until you see the Indicator LEDs start to flash. The firmware reset normally will take up 45 seconds during which time the keyboard will be inactive and LEDs will flash in sequence on first the right module, and then the left module. **IMPORANT NOTE: DO NOT unplug or type on keyboard until done.** If it is successful, the indicator LEDs will flash green on both sides indicating the keyboard is now ready to use. you can tap the Keypad key to test the keyboard. Run a Status Report or launch the SmartSet App to confirm the new version of firmware was successfully installed.

## 8.0 Troubleshooting, Support, Warranty, and Care

### 8.1 Troubleshooting

If the keyboard behaves in unexpected ways, there are a variety of easy “DIY” fixes you can experiment with:

1. Replug the keyboard
2. Load Profile 0> Hold SmartSet and Tap 0 to return all keys on the keyboard to their default action
3. Open the v-Drive and see if you get a Repair Drive notification from your O/S
4. Soft Reset> Hold SmartSet and Right Ctrl and tap Enter to delete all remaps/macros in the active Profile
5. Hard Reset> Unplug the keyboard, and then Hold SmartSet and Right Ctrl and Enter while re-plugging to restore the keyboard to factory settings
6. Default Firmware Install> Unplug the keyboard, and then Hold SmartSet and Right Ctrl and U while re-plugging to install clean copy of default firmware

For FAQs and troubleshooting tips visit: [kinesis.com/support/kb360/](https://kinesis.com/support/kb360/).

### 8.2 Contacting Kinesis Technical Support

Kinesis offers, to the original purchaser, free technical support from trained agents based in our US headquarters. Kinesis has a commitment to deliver best-in-class customer service and we look forward to helping if you experience any problems with your Advantage360 keyboard or other Kinesis products.

For technical, please submit a Trouble Ticket at [kinesis.com/support/contact-a-technician](https://kinesis.com/support/contact-a-technician).

### 8.3 Warranty

Visit [kinesis.com/support/warranty/](https://kinesis.com/support/warranty/) for the current terms of the Kinesis Limited Warranty. Kinesis does not require any product registration to obtain warranty benefits. Proof of purchase is required for warranty repairs.

### 8.4 Return Merchandise Authorizations (“RMAs”) and Repairs

For any repair by Kinesis, regardless of warranty coverage, first submit a Trouble Ticket to explain the problem and obtain a Return Merchandise Authorization (“RMA”) number and shipping instructions. Packages sent to Kinesis without an RMA number may be refused. Keyboards will not be repaired without information and instructions from the owner. Products normally should be repaired by qualified personnel only. If you wish to perform your own repairs, contact Kinesis Tech Support for advice. Unauthorized or inexpertly carried-out repairs may jeopardize the safety of the user and may invalidate your warranty.

### 8.5 Electronic Care: Ejecting v-Drive after use

All v-Drives should be “ejected” like other thumb drives before being closed. Occasionally you may see a warning that scanning and “fixing” the drive are advised. This is most likely if you open the drive and manually edit files, then close the drive without ejecting, and you should perform the brief “scan and fix” process. Normally this does not result in any loss of files or contents from the v-Drive.

### 8.6 Cleaning

The Advantage360 is hand-assembled in the USA by trained technicians using premium components. It is designed to last for many years with proper care and maintenance, but it is not invincible. To clean your Advantage360 keyboard, use a vacuum or canned air to remove dust from the keywells. Using a water-moistened cloth to wipe the surface will help keep it looking clean. *Avoid excess moisture!*

### 8.7 Use caution when moving keycaps

A keycap removal tool is provided to change keycaps. Please be delicate when removing keycaps and note that excessive force can damage a key switch and void your warranty. *Note: that the Advantage360 uses a variety of key cap heights/slopes so moving keys may result in a slightly different typing experience.*