

Freestyle Pro<sup>®</sup>™

**KINESIS**  
COMPUTER ERGONOMICS

## User Manual — KB900





Kinesis Corporation  
22030 20th Avenue SE, Suite 102  
Bothell, Washington 98021 USA  
[www.kinesis.com](http://www.kinesis.com)

Keyboard models covered by this manual:

- KB900-BRN
- KB900-RDQ

September 16, 2020 Edition

This manual covers features included through firmware version 1.0.532. Your keyboard may be sold with an earlier version of firmware. To download the latest firmware and to access all support resources visit [www.kinesis.com/support/freestyle-pro](http://www.kinesis.com/support/freestyle-pro)

To shop for accessories visit [www.kinesis.com/products/](http://www.kinesis.com/products/):

- Palm Supports (AC903)- Detachable Palm Supports.
- VIP3 Pro Premium (AC925)- Adjustable tenting accessory and Premium Palm Supports (5°/10°/15°).
- V3 Pro (AC930)- Adjustable tenting accessory (5°/10°/15°) for use without Palm Supports.
- Palm Pads (AC700blk)- Cushioned palm pads for use with Palm Supports.
- Premium Palm Supports (AC908)- Extra thick, cushioned palm pads.
- Desk Mat (MP8040)- Extra large, multipurpose desk mat /mouse pad.

© 2020 by Kinesis Corporation, all rights reserved. Kinesis and Freestyle are registered trademarks of Kinesis Corporation. Freestyle Pro, SmartSet, and v-Drive are trademarks of Kinesis Corporation. All other trademarks are property of their respective owners.

Information in this document is subject to change without notice. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any commercial purpose, without the express written permission of Kinesis Corporation.

---

#### **FCC Radio Frequency Interference Statement**

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 Interface-causing Equipment Regulations.

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

# Table of Contents

<b>1.0</b>	<b>Read Me First</b> .....	4
1.1	Health and Safety Warning.....	4
1.2	Quick Start Guide.....	4
1.3	Read this User's Manual.....	4
1.4	Disable All Programming.....	4
<b>2.0</b>	<b>Keyboard Overview</b> .....	4
2.1	Specifications.....	5
2.2	Features.....	5
2.3	Package Contents.....	5
2.4	System Requirements.....	5
2.5	Installation.....	5
<b>3.0</b>	<b>Introduction</b> .....	6
3.1	Dual Layer Layouts (Embedded Fn Layer).....	6
3.2	Multimedia Actions.....	6
3.3	Programming Cluster.....	6
3.4	SmartSet Programming Engine Onboard Shortcuts.....	6
3.5	Adjustable Linking Cable.....	7
3.6	Hotkeys.....	7
3.7	Mac Users.....	7
3.8	Dvorak Typists.....	7
<b>4.0</b>	<b>SmartSet Onboard Programming</b> .....	8
4.1	Layouts.....	8
4.2	Recording Macros.....	8
4.3	Remapping Keys.....	9
4.4	Run Status Report.....	10
4.5	v-Drive.....	10
4.6	Adjust Global Macro Speed.....	11
4.7	NKRO Mode.....	11
4.8	Soft & Hard Reset.....	11
4.9	Refresh Settings.....	11
4.10	Program Lock.....	12
4.11	Update Firmware.....	12
4.12	Adjust Status Report Playback Speed.....	12
4.13	Force v-Drive Open.....	12
<b>5.0</b>	<b>SmartSet Programming App</b> .....	13
<b>6.0</b>	<b>Direct Programming</b> .....	14
6.1	Programming Layouts.....	14
6.2	Position Token Map.....	15
6.3	Action Token Dictionary.....	16
6.4	Programming Remaps.....	17
6.5	Programming Macros.....	17
6.6	Programming Settings.....	18
6.7	v-Drive Repair.....	18
<b>7.0</b>	<b>Maintenance</b> .....	19
<b>8.0</b>	<b>Technical Support, Repairs, and Returns</b> .....	19
<b>9.0</b>	<b>Warranty &amp; Limitation of Liability</b> .....	19

# 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 keyboarding time every day.
- Follow established guidelines for computer and workstation setup.
- 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.

### **No warranty of injury prevention or cure**

Kinesis 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 physical ailment. Your particular risk of injury may be affected by workstation and chair design, posture, time worked without breaks, type of work, activities outside the workplace, and/or individual physiology.

## 1.2 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 [www.kinesis.com/support/freestyle-pro](http://www.kinesis.com/support/freestyle-pro). Consult this full User Manual for detailed descriptions of both basic and advanced features.

For more getting started tips, visit: [kinesis.com/freestyle-pro-getting-started/](http://kinesis.com/freestyle-pro-getting-started/)

## 1.3 Read This User's Manual

Even if you don't normally read manuals or you are a long-time user of Kinesis keyboards, we strongly encourage you to review this entire manual. The Freestyle Pro is a fully-programmable keyboard with powerful tools and features. If you unknowingly execute a programming shortcut or key combination, you could inadvertently alter the layout of your keyboard which might necessitate a Hard Reset of the keyboard.

## 1.4 Disable All Programming

If you are a Windows user and QWERTY typist, and have no intention of custom programming the keyboard, we recommend performing the simple Program Lock command to prevent accidental reprogramming. If you change your mind down the road you can always "unlock" programming . See Section 4.10 for details.

## 2.0 Keyboard Overview

### 2.1 Specifications

- Compact tenkeyless design with standard US ANSI key layout and embedded numeric keypad
- 6' USB cable and 20" adjustable linking cable
- 2 year limited warranty
- Dimensions: 1.25" tall x 15.5" wide x 7.25" deep
- Weight: 2.8 lbs

### 2.2 Features

- Premium Cherry® MX Brown or MX "Silent" Red mechanical switches
- Multi-platform compatibility
- SmartSet Programming Engine
- SmartSet Programming App for Windows & Mac (pre-loaded on the v-Drive)
- 9 dual-layer, fully-programmable layouts (including Mac and Dvorak)
- 4MB onboard memory (v-Drive™)
- Multimedia controls (embedded Fn layer)
- Integrated Numeric 10-Key (embedded Fn layer)
- 8 pre-programmed hotkeys to boost productivity
- Available Game Mode, NKRO Mode, Multimodifiers, Tap-and-Hold Actions (firmware update may be required)

### 2.3 Package Contents

- Freestyle Pro mechanical keyboard
- SmartSet Programming App for Windows & Mac (pre-loaded on the v-Drive, new version may be available for download– See Section 5)
- 4 Mac keycaps and keycap puller
- Quick Start Guide

### 2.4 System Requirements

- Windows® 7-10, macOS® v10.6+, Chrome OS® or Linux® & full-size USB Port

### 2.5 Installation

To install the Freestyle Pro simply plug the USB cable into a full-size USB port on your computer. The Pro does not require the installation of any special software or drivers or an internet connection.

## 3.0 Introduction

### 3.1 Dual Layer Layouts (Embedded Fn Layer)

The Freestyle Pro has two separate layers so each of the 95 full-size keys can be programmed to perform two unique actions per Layout, a top layer action and an “embedded” Fn layer action. Tap the Fn key to toggle between the top layer and the Fn layer. The Fn indicator light will illuminate while the Fn layer is active.

Embedded actions are legended in blue. If a key doesn't not have a secondary blue legend, it performs the same action in both layers by default.

Fn Key can be changed to a momentary “hold” action instead of a “tap” using the SmartSet App (see Section 5).



### 3.2 Multimedia Actions

Change your audio on the fly by accessing the 6 standard multimedia actions by using the Fn key to toggle on the Fn layer. These multimedia actions can be reassigned to any key on the keyboard in either layer using onboard programming (see Section 4.3) or the SmartSet App (see Section 5).



### 3.3 Programming Cluster

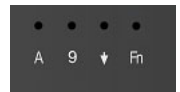
The four Programming Cluster keys enable quick and easy onboard reprogramming (see Section 4). Tap the Layout key to toggle between the 3 primary layouts (1, 2, and 3), the Macro key controls on-the-fly macro recording, and the Remap key controls onboard remapping (aka rebinding). The SmartSet Key (gear icon) controls all onboard programming shortcuts.

The two Layout LEDs indicate which layout is currently active. The Macro LED flashes when on-the-fly macro recording is in progress. The Remap LED flashes when onboard remapping is in progress. The SmartSet LED flashes to confirm certain programming commands.

The four indicator LEDs in the upper right corner of the right key module are Caps Lock, Num Lock, Scroll Lock, and the Fn Layer.



SmartSet Key



### 3.4 SmartSet Programming Engine- Onboard Shortcuts

The SmartSet key is used in conjunction with the F7-F9 & F12 keys to activate onboard shortcuts. Onboard shortcuts are legended in white to differentiate them from embedded Fn layer actions in blue. Additional (unlegended) onboard shortcuts are described in Sections 4.10 - 4.15.

To trigger an onboard shortcut, first press and hold the SmartSet Key and then tap F7-F9. To prevent against accidentally triggering the Soft Reset shortcut you must also press and hold Shift along with the SmartSet Key before tapping F12 (“RESET” appears in all-caps to indicate that it requires the shift key). For a detailed explanation of onboard shortcuts see Section 4.



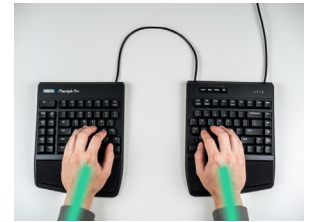
### 3.5 Adjustable Linking Cable

The two key modules are connected by a 20" linking cable that can be adjusted to suit your typing preferences and body type. The basic configuration allows up to 12" of separation which is more than enough for most users.

If you need additional cable, simply remove the cable compartment cover on the back of the left key module and thread out more of the stored cable. Once you have achieved the desired cable length, carefully fit the excess cable into the compartment removing any kinks and slide the cable cover on until it latches.

**⚠ Rotate the left key module to remove kinks so the cable lies flat. ⚠**

Position the key modules at shoulder width and/or rotate them slightly to achieve a neutral wrist position for an ergonomically optimal typing position. Start with a small separation or modest rotation and work your way up to the position that feels most comfortable. For more information on typing postures visit: [www.kinesis.com/solutions/keyboard-risk-factors/](http://www.kinesis.com/solutions/keyboard-risk-factors/)



### 3.6 Hotkeys

The Freestyle Pro features 8 pre-programmed hotkeys designed to eliminate repetitive key strokes and awkward key combinations. Layouts 1 and 3-9 are configured for Windows users. Layout 2 is configured for Mac users.

- Desktop: Toggles to your desktop view.
- Last App: Toggles to the last active application window
- Select All: Selects all text or items in the active window (application specific)
- Undo: Undoes the last action (application specific)
- Cut: Cuts the selected text to the clipboard
- Delete: Deletes text to the right of the cursor
- Copy: Copies the selected text to the clipboard
- Paste: Pastes the selected text from the clipboard after a Cut or Copy



### 3.7 Mac Users

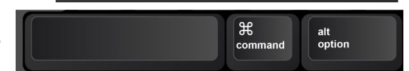
Mac users should load Layout 2 by tapping the Layout Key once, and then install the 4 Mac modifier keycaps (as shown at right) using the included keycap tool.

Layout 2 updates the four modifier keys to match a standard Mac keyboard (and the 4 Mac keycaps), reconfigures the 8 hotkeys to work on macOS, and transforms the Print Screen key ("PrtSc") into the Mac screen shot command.

Layout 2 can be customized using Onboard Programming or the SmartSet App.



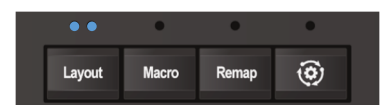
Layout 2 active when the right LED is on.



Install Mac Keycaps as Shown Above

### 3.8 Dvorak Typists

Dvorak typists should load Layout 3 for a pre-configured Dvorak layout. Layout 3 can be customized using Onboard Programming or the SmartSet App.



Layout 3 is active when both LEDs are on

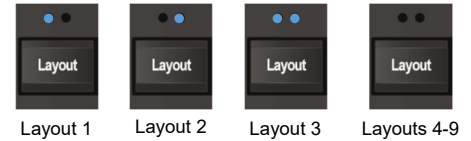


## 4.0 SmartSet Onboard Programming

The SmartSet Engine lets you custom program the Freestyle Pro without installing any software or special drivers on your computer. All layouts and settings are saved directly to the v-Drive so they move with the keyboard. There are three ways to program the keyboard: 1) **Onboard Programming** (all O/S), 2) the **SmartSet App** (Windows & Mac), and **Direct Programming** (all O/S). Use onboard programming to quickly build custom layouts (remaps & macros) and adjust keyboard settings with simple onboard shortcuts.

### 4.1 Layouts (Layout or SmartSet + Number Row)

The Freestyle Pro puts 9 fully-programmable, dual-layer layouts at your disposal. Each layout can be custom configured for different applications, computers, or users. The two LEDs above the Layout Key indicate the active layout.



Tap the Layout Key to toggle through the three primary layouts (Layouts 1-3). To jump directly to any of the nine layouts, hold the SmartSet Key and then tap 1-9 in the number row to select the layout you wish to load (Run a Status Report to confirm the active layout).

### 4.2 Recording Macros

A macro is string of characters or key actions that is triggered by a single key press (or combo). Macros are powerful tools that can eliminate awkward key combinations and repetitive key strokes. Macros are assigned to the active layout when recorded and each layout can store 24 macros, each up to 300 characters long.

To record a macro on-the-fly, tap the Macro key in the Programming Cluster to enter Macro Record Mode, choose your trigger key(s) and then type out your macro. Tap the Macro key stop recording.



#### Macro Trigger Key(s)

After entering Macro Record Mode, the Macro LED will flash rapidly prompting you to select a trigger key or key combination. Any full-size non-modifier key can be used as a macro trigger. A macro can also be triggered by a two-key combination by pairing the primary trigger key with a modifier-key “co-trigger”. To assign a key combination as a macro trigger, first press and hold one of the six standard modifier keys (either the left or right Ctrl, Alt or Shift) and then tap the desired primary trigger key. The Windows key is not recommended for use as a macro co-trigger.

#### Macro Contents

After a valid macro trigger has been selected, the Macro LED will flash slowly prompting you to begin recording your macro (open an appropriate program during recording). Every single keystroke will be recorded so if you make a mistake, we recommend restarting rather than using backspace key. To stop recording and save your macro, simply tap the Macro key. *Note: Macro Record Mode will end automatically when you hit the max length of 300 keystrokes.*

The speed at which you type out the macro and pauses between keystrokes are not recorded. The macro will playback at the Global speed setting (see Section 4.6) by default, but the playback can be customized by adding internal timing delays or by setting an custom playback speed for that specific macro using the SmartSet App (see Section 5) or Direct Programming (see Section 6.5).



## Macro Playback

To playback a macro, simply press the trigger key(s). Modifier co-triggers should be pressed first and held while the primary trigger key is then tapped. See Sections 4.6 and 6.5 to adjust the playback speed.

## Erasing a Macro

To erase a macro onboard, simply tap the Macro key, then input the trigger key(s) of the macro you wish to erase. Once the Macro LED starts flashing slow, simply tap the Macro key again to record an “empty” macro.

## Macro Limit

Each layout can accommodate 24 macros. When you have reached the limit the keyboard will flash when if you tap the Macro key to signal that you must erase a macro before recording a new one. *Note: Exact macro capacity depends on the quantity and length of your macros and the keyboard firmware version.*

## 4.3 Remapping Keys

With the Remap key, you can reassign any default key action on the Freestyle Pro to any other full-size key (in either layer) to customize the layout . The only key that cannot be remapped onboard is the Fn key, but the Fn key can be remapped using the SmartSet App or Direct Programming.

Tap the Remap key to enter Remap Mode. The Remap LED will flash rapidly to prompt you to first select the “Source” key action (i.e., the key action that you wish to assign). After selecting the Source key, the LED will flash slowly prompting you to select the “Destination” key position (i.e., the physical key that you wish to perform the new action). Once you select the Destination key Remap Mode will end.



## Remapping Tips

- Remapping is a one-way process, it creates a duplicate key action but it does not “swap” two key actions. To “swap” two keys you must perform two separate remap programming commands.
- Remapping only operates on one layer at a time. To remap the same key in both layers you must perform two separate remap commands, one for each layer.
- While Remap Mode is active, you can use the Fn key to navigate between layers as necessary if you wish to move a key action (e.g., the media keys) from the Fn layer to the top layer, or vice versa.
- While Remap Mode is active, the keyboard reverts back to the default QWERTY-Windows layout.

## Special Actions



If you would like to assign a key action that is not present in the default Pro layout, you can select from a menu of supported Special Actions using the SmartSet App or Direct Programming (see Sections 5 and 6.3).

## Macro and Remap conflict

It is possible to assign a macro and a remap to the same physical key. In that event, the macro playback will take priority over the remap action when you press that key, except when macros have been temporarily disabled (see Section 4.6).

## 4.4 Run Status Report (SmartSet + F7)

Use the Status Report to “print-to-screen” a convenient report of the current global keyboard settings.

 **Make sure you have a text editing program (e.g., Notepad, Word) selected as the active window before running a Status Report.** 

- Layout> Indicates the active layout currently loaded to the keyboard (1-9).
- Remaps> Indicates the number of remapped keys in the active layout
- Macros> Indicates the number of macros saved to the active layout (including the hotkeys)
- Macro Speed> Indicates the “Global” speed at which all macros are played back (see Section 4.6)
- Status Report Speed> Indicates the Speed at which the Status Report is played

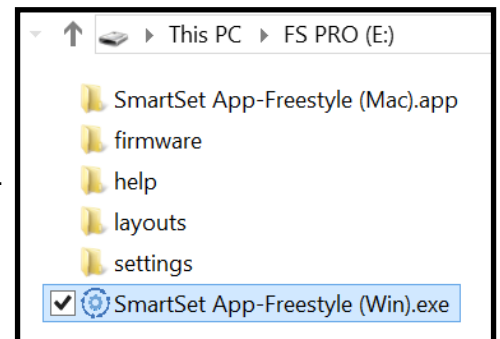
```
Model> FS Pro
Firmware> 1.0.0.us (4MB), 07/15/2017
Active Layout> 1
Remaps> 0
Macros> 8
Macro Speed 0-9> 3
Game Mode> Off
NKRO Mode> Off
Status Report Speed 0-4> 3
```

## 4.5 Open/Close v-Drive (SmartSet + F8)

The Freestyle Pro features a 4MB virtual drive called the “v-Drive” which is the heart of the SmartSet Programming Engine. During normal use the v-Drive is hidden from your computer but it can be temporarily “opened” using the onboard shortcut to 1) run the SmartSet App (see Section 5), 2) to Direct Program layouts and settings files (see Section 6), 3) or to install a firmware update (see Section 4.12). *Note: It is not necessary to access the v-Drive for basic keyboard use.*

When you use the onboard shortcut to connect the v-Drive your computer will now recognize the keyboard as a Removable Storage Device called “FS PRO”. The specific appearance and location of the “FS PRO” drive on your computer will depend on your operating system.

- Windows: If a pop-up doesn’t appear, open File Explorer and look under “This PC”
- Mac: Look on the Desktop or under “DEVICES”
- Linux : Look in “MY COMPUTER”
- Chrome: Look in “FILES”



File Explorer view of “FS PRO” removable v-Drive

 **Keep the v-Drive closed when not in use** 

For best results, keep the v-Drive closed when not using the SmartSet App and refrain from re-programming the keyboard using onboard shortcuts while the v-Drive is open. *Note: The keyboard’s multimedia and mouse actions are disabled while the v-Drive is open, and some Onboard Shortcuts may also be disabled.*

### Closing the v-Drive

Before disconnecting the v-Drive, always save your work. close all .txt files and the SmartSet App, and eject the drive from your Operating System by right-clicking it and selecting the “Eject” option.

Then, use the same v-Drive shortcut to disconnect the v-Drive (LEDs will flash) to resume normal operating mode, or you can simply unplug the keyboard. *Note: Mac users can safely ignore the “Device Not Ejected Properly” message.*

## 4.6 Adjust Global Macro Speed (SmartSet + F9, then number row)

The Freestyle Pro can playback macros at one of nine different speeds, ranging from a super-slow 4 characters-per-second (CPS) up to a blazing fast 3,000 CPS! The default Global speed is Speed 5, which is good for text macros but might be too fast or slow for certain key combinations depending on your computer and the application. To adjust the Global speed, use the onboard shortcut to enter Macro Speed Mode and then use the number row to select a speed from 1-9. If you wish to temporarily disable macro playback without deleting any macros, chose “0” instead.

Setting	Speed 1	Speed 2	Speed 3	Speed 4	Speed 5	Speed 6	Speed 7	Speed 8	Speed 9
Actions Per Second	4	8	12	22	35 (default)	62	85	125	250
Words Per Minute	48	96	144	264	420	744	1,020	1,500	3,000

*\*Playback speeds are approximate. Exact speeds will depend on the length of the macro, your computer, and the active application.*

*Note: You can override the Global speed setting and assign a custom, individual playback speed for any given macro using the SmartSet App (see Section 5) or Direct Programming (see Section 6.5).*

## 4.7 Enable/Disable NKRO Mode (SmartSet + Shift + F10)

NKRO (“n-key rollover”) mode is a special operating mode that allows the keyboard to register all simultaneous key-presses. Most standard keyboards limit the number of keys you can press at one time to six (aka “6KRO”). If you press more than 6 keys at a time on a 6KRO keyboard, the keyboard may fail to register some of those key-presses. 6KRO is fine for basic typing and will work for most keyboard users a majority of the time, but some keyboard enthusiasts prefer NKRO for maximum performance. Use the onboard shortcut to toggle NKRO Mode on and off (the Pro will take a second to re-enumerate). NKRO mode will remain in effect until keyboard is unplugged or the v-Drive is opened. Confirm NKRO mode with the Status Report.

## 4.8 Soft Reset (SmartSet + Shift + F12)

Use the Soft Reset onboard shortcut to erase all remaps and macros in both layers of the active layout. *Note: Soft Reset will also erase the default macros assigned to the 8 hotkeys.* The “Reset” legend is capitalized to remind you that you need to combine the Shift key with the SmartSet key to protect you from accidentally performing a Soft Reset.

## Hard Reset (SmartSet + F12 while plugging in keyboard)

Use the Hard Reset onboard shortcut to restore all nine layouts to the QWERTY Windows configuration and to restore the Pro to its factory default settings. *Note: Backup Mac and Dvorak layouts are not affect by either a Soft or Hard Reset.*

## 4.9 Refresh Settings (SmartSet + Layout)

The Refresh shortcut is a very important tool if you are programming the keyboard using the SmartSet App or Direct Programming. Unlike conventional keyboard software that uses custom drivers, the SmartSet App is driverless and does not update the keyboard settings dynamically. Normally changes made do not go into effect until the v-Drive is disconnected, but you can use the Refresh onboard shortcut to implement any saved changes immediately.

## **4.10 Program Lock (SmartSet + Shift + L)**

Use the Program Lock onboard shortcut to temporarily deactivate all of the Programming Cluster keys. To disable Program Lock use the same onboard shortcut. If you have no plans to reprogram the keyboard, or have successfully programmed the keyboard to your liking, we highly recommend engaging the Program Lock to prevent accidental reprogramming.

*Note: Indicator LEDs flash 4x upon Lock, and 2x upon Unlock.*

## **4.11 Update Firmware (SmartSet + Shift + U)**

Periodically Kinesis will release new versions of firmware for the Freestyle Pro with new features and bug fixes.

Check here for firmware updates: [www.kinesis-com/support/freestyle-pro/#firmware-updates](http://www.kinesis-com/support/freestyle-pro/#firmware-updates)

Installing new firmware is quick and easy.

1. Obtain a valid Freestyle Pro firmware file (".upd" file) from the URL above
2. Connect the v-Drive (SmartSet + F8)
3. Save the new firmware file inside the "firmware" subfolder on the v-Drive
4. Rename the firmware file "update.upd"
5. Disconnect the v-Drive (SmartSet + F8)
6. Press SmartSet + Shift + U to initiate the update

If a valid firmware file has been renamed properly and saved to the correct location, the keyboard will flash and the lights will go off for 10-12 seconds. The keyboard will then re-enumerate with the new firmware.

Run a Status Report to confirm the new firmware has been installed correctly. *Note: Custom layouts and settings are not affected by a firmware update.*

## **4.12 Adjust Status Report Playback Speed (SmartSet + Shift + F7, then 0-4)**

Certain computers may have problems playing the Status Report. If you are experiencing dropped characters you can try a slower playback speed. Use the onboard shortcut to enter Status Speed Mode (LEDs will flash), then tap "1-4" to select a different speed (default speed is 3), or "0" to disable the Status Report all together.

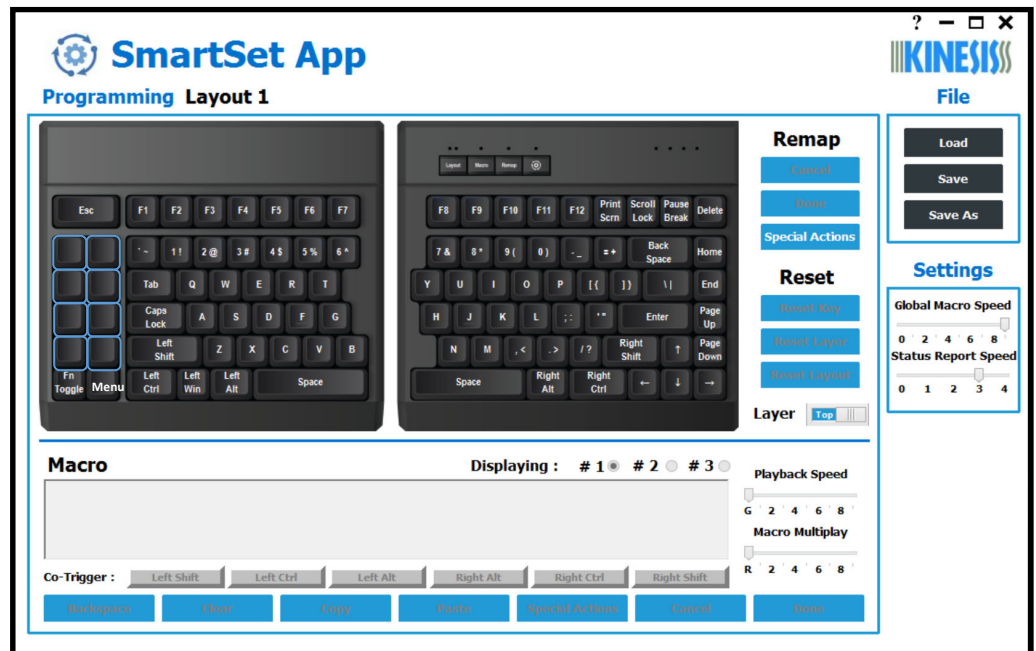
## **4.13 Force v-Drive Open (SmartSet + F8 while plugging in keyboard)**

If you wish to have the v-Drive open when you plug in the keyboard, or are having difficulty accessing the v-Drive with the normal shortcut, simply hold down this shortcut while plugging in the keyboard.

## 5.0 SmartSet Programming App for Windows & Mac

The SmartSet App lets you design and edit custom layouts, build powerful macros, and customize keyboard settings. The App works in conjunction with onboard programming, but it has several additional tools for power users. The App can be run from any Windows or Mac computer and all settings are saved directly to the keyboard for use on all Operating Systems.

- **Special Actions:** F13-F24, mouse actions, Fn “Shift”, numeric keypad actions, Dvorak/Colemak layouts and more.
- **Macro tools:** individual playback speeds, multiplay, Windows combinations, timing delays, or choose from various pre-configured macros.
- **Tap-and-Hold Actions:** Assign two distinct actions to a single, non-typing key (example: Hold the Shift Key for Shift, or tap it for Escape). \*\*\*Firmware update required.
- **Multi-modifiers:** Assign the Hyper or Meh multi-modifier keys for conflict free, system wide shortcuts using third party software. \*\*\*Firmware update required.



### Launching the App

Use the onboard shortcut to connect the v-Drive, then locate and open the “FS Pro” removable drive (See Section 4.5 for details). The v-Drive is pre-loaded with a Windows version and a 32-Bit Mac version of the SmartSet App. Select the appropriate version of the App based on the Operating System of the connected computer. Be sure to save your changes in the App, and then close the App and eject the v-Drive in your O/S before disconnecting the v-Drive using the onboard shortcut.

*Note: Mac users who have upgraded to a 64 bit version of macOS will need to download the 64 bit version of the SmartSet App at the URL below.*

### Downloading New Versions

Newer versions of the App may be available here: [www.Kinesis.com/support/freestyle-pro/#smartset-app](http://www.Kinesis.com/support/freestyle-pro/#smartset-app)

### Detailed App Usage Instructions

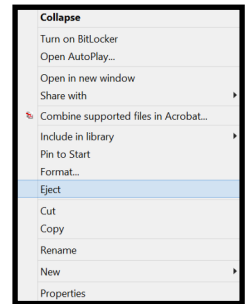
For detailed App programming instructions consult the *Freestyle Pro SmartSet App Manual* available here: [www.kinesis.com/support/freestyle-pro/#manuals](http://www.kinesis.com/support/freestyle-pro/#manuals)

## 6.0 Direct Programming

The keyboard's layouts and settings are stored on the v-Drive as a series of simple text files (.txt), which can be accessed in Windows, Linux, Mac, and Chrome. Each time a remap or macro is created, it is written to the corresponding layout .txt file as a discrete line of "code". Each time a keyboard setting is changed, the change is recorded in the appropriate field in the "kbd\_settings.txt" file. Users can edit these files directly to customize keyboard layouts and settings. For those that do not have a computer that can run the SmartSet App, Direct Programming is a way to access to the various power user tools which are not otherwise available through onboard programming.

### **Eject v-Drive before closing (Windows Users)**

After editing any .txt files on the v-Drive, it is necessary to first save and close the files, and then use the Windows eject protocol *before* closing the v-Drive. Right click the "FS PRO" removable drive in File Explorer and select Eject. Once you receive the "Safe to Eject" notification you may proceed to closing the v-Drive with the onboard shortcut. Failure to eject can result in a minor drive error that Windows will ask you to repair (see Section 6.7).



### **Non-US Users**

Your computer must be configured for the English (US) keyboard layout. Other language drivers use different codes/positions for certain keys which are critical for programming characters such as [], {} and >.

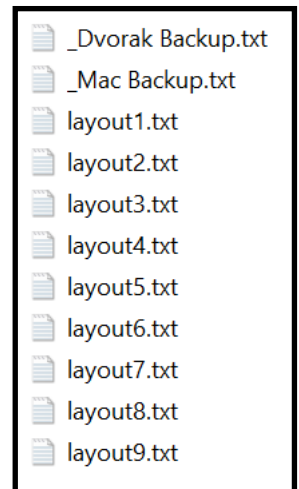
## 6.1 Direct Programming Layouts

The nine default layouts are saved as separate .txt files in the "layouts" subfolder. Each layout is based on the default PC key configuration and displays the 8 pre-programmed hotkeys. Additional remaps and macros are saved to specific layout files.

Layout 2 has been customized for Mac users and Layout 3 for Dvorak typists. Deleting a layout file will permanently delete its custom remaps & macros, but the keyboard will automatically regenerate a QWERTY layout file with the 8 standard Windows hotkeys. Backup Mac and Dvorak layouts are included in the layouts subfolder for your since a Reset will always restore Layout 2 or Layout 3 as the QWERTY Windows default.

### **File Naming Convention**

Only the numbered layouts can be loaded to the keyboard. Additional backup layouts can be saved as with descriptive names, but they cannot be loaded without first renaming them.



### **Syntax Overview**

Remaps and macros are encoded in a layout file using a basic syntax. Each of the 95 full-size keys on the keyboard has been assigned a unique "Position" token used to identify it during programming (see Section 6.2). Each keyboard & mouse action supported by the Pro has been assigned a unique "Action" token corresponding to a standard USB "scan code" (see Section 6.3). Each line of code must include a position token and one or more action tokens. The ">" symbol is used to separate position tokens from actions tokens, and individual tokens are surrounded by brackets. Examples:

- Remaps are encoded with Square Brackets: [position]>[action]
- Macros are encoded with Curly Brackets: {position1}{position2}>{action1}{action2}{action3}...



## Layout Programming Tips

- Position tokens are always based on the default QWERTY Windows layout
- If the keyboard cannot understand the desired remap, then the default action will remain in effect.
- Do not mix and match square and curly brackets in a single line of code
- Separate each line of code with Enter/Return
- The order in which the lines of code appears in the .txt file does not generally matter, except in the event of conflicting commands, in which case the command closest to the bottom of the file will be implemented.
- Tokens are not case-sensitive. (see Section 6.5).
- A line of code can be temporarily disabled by placing an asterisk (\*) at the beginning of the line.

## 6.2 Position Token Map

### Top Layer Position Tokens



### Fn Layer Position Tokens

In general, to designate a key position in the Fn layer, you simply encode the prefix “fn” (with a space) before the basic, top-layer token (outside the brackets). Keys with a unique embedded key action have different Fn layer position token as shown below.



## 6.4 Programming Remaps

To program a remap, encode the position token and the action token in square brackets, separated by “>”.

### Remap Examples:

1. Hotkey 1 performs Q: `[hk1]>[q]`
2. Escape key performs Caps Lock: `[esc]>[caps]`
3. The Windows key in the Fn layer performs Right Shift: `fn [lwin]>[rshft]`
4. F1 in the embedded layer performs Tab: `fn [mute]>[tab]`

## 6.5 Programming Macros

### Shifted Actions



To produce a shifted key action, it is necessary to encode a macro which includes the both the down and up stroke of the shift key surrounding the basic key action. Downstrokes are indicated by placing a “-” inside the bracket and upstrokes are indicated by placing “+”. See example 1 below.

### Individual Playback Speed Prefix {s\_}

By default, all macros play at the selected “Global” playback speed. To assign a custom speed for improved playback performance for a given macro you can use the “Individual Playback Speed” prefix “{s\_}”. Choose a number from 1-9 corresponding to the speed scale shown Section 4.6. The speed prefix should be placed to the right of the “>” before the macro content. See example 2 below.

### Multiplay Prefix {x\_}

By default, all macros playback continuously while the trigger key is held. To override the repeat feature and restrict a macro to playback a specific number of times you can use the “Macro Multiplay” prefix “{x\_}”. Choose a number from 1-9 corresponding to the number of times you want the macro to replay. The multiplay prefix should be placed to the right of the “>” before the macro content. See example 3 below.

 If a macro is not playing back properly, try assigning a Multiplay value of 1. The macro may actually  be firing multiple times before you are releasing the trigger key.

### Delays

Delays can be inserted into a macro to improve playback performance or to produce a mouse double-click. Delays are available in 125 and 500 millisecond increments (`{d125}` & `{d500}`). Delay tokens can be combined to produce delays of various durations and inserted at any point in a macro. See example 4 below.

### Macro Examples:

1. Pause key performs “Hello” with a capital H: `{pause}>{-lshft}{h}{+lshft}{e}{l}{l}{o}`
2. Hotkey 5 performs “qwerty” at speed 9: `{hk5}>{s9}{q}{w}{e}{r}{t}{y}`
3. Hotkey 1 increases the volume 3 notches: `{hk1}>{x3}{vol+}`
4. Tab key performs a left-mouse double click: `{tab}>{lmous}{d125}{lmous}`

## 6.3 Action Token Dictionary

### Alphanumeric

A	B	C	D	E	F	G	H	I	J	K	L	M
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
TILDE	1	2	3	4	5	6	7	8	9	0	-	=

### Function Keys

F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
F13	F14	F15	F16	F17	F18	F19	F20	F21	F22	F23	F24

### Modifiers

Left Shift	Right Shift	Left Alt	Right Alt	Left Windows & Command	Right Windows & Command	Left Ctrl	Right Ctrl	Shift + Ctrl + Win + Alt	Shift + Ctrl + Alt
LSHFT	RSHFT	LALT	RALT	LWIN	RWIN	LCTRL	RCTRL	HYPER	MEH

### Punctuation

Open Bracket	Close Bracket	Period	Comma	Apostrophe	Forward Slash	Back Slash	Colon	Hyphen
OBRK	CBRK	PER	COM	APOS	/	\	COLON	HYPH

### Multimedia & Mouse Clicks

Mute	Volume Up	Volume Down	Play/Pause	Next Track	Previous Track	Left Mouse	Right Mouse	Middle Mouse	Mouse Button 4	Mouse Button 5
MUTE	VOL+	VOL-	PLAY	NEXT	PREV	LMOUS	RMOUS	MMOUS	MOUS4	MOUS5

### Editing & Navigation

Enter	Tab	Space	Delete	Backspace	Home	End	Page Up	Page Down
ENT	TAB	SPC	DEL	BSPC	HOME	END	PUP	PDN
Left Arrow	Right Arrow	Up Arrow	Down Arrow	Escape	Print Screen	Pause	Scroll Lock	Insert
LFT	RGHT	UP	DWN	ESC	PRNT	PAUSE	SCRLK	INS

### Numeric Keypad

Keypad 0	Keypad 1	Keypad 2	Keypad 3	Keypad 4	Keypad 5	Keypad 6	Keypad 7	Keypad 8
KP0	KP1	KP2	KP3	KP4	KP5	KP6	KP7	KP8
Keypad 9	Num Lock	Keypad Plus	Keypad Minus	Keypad Divide	Keypad Multiply	Keypad Enter	Keypad Equals (Mac)	Keypad Decimal
KP9	NUMLK	KP+	KP-	KP/	KP*	KPENT	=MAC	KP.

### Miscellaneous

Caps Lock	Fn Toggle	Fn Shift	PC Menu (App)	Calculator Windows	Shutdown Windows	Shutdown Mac	125 MS Delay	500 MS Delay	No Key Action	Layout Toggle
CAPS	FNTOG	FNSHF	MENU	CALC	SHTDN	PWMAC	D125	D500	NULL	LYOUT

### International

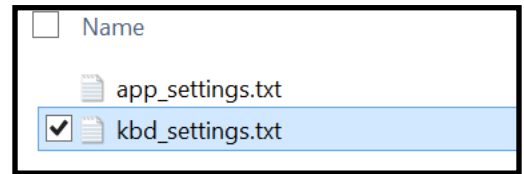
International	International 1	International 2	International 3	International 4	International 5
INTL/	INTL1	INTL2	INTL3	INTL4	INTL5

## 6.6 Programming Settings

### Keyboard Settings

The current global settings for the keyboard are saved in the “kbd\_settings.txt” file in the “settings” sub-folder. Users can update these settings by modifying the fields in this .txt file and then using the Refresh shortcut (SmartSet + Layout) to implement them.

- **startup\_file:** Edit the name of the .txt file to instruct the keyboard to load a different active layout.
- **macro\_speed:** Change the Global Macro Speed (see Section 4.7) with “1-9” for speed, or “0” to disable (default = 5).
- **game\_mode:** Disable Game Mode with “OFF” or enable with “ON” (see Section 4.8).
- **nkro\_mode:** Disable NKRO Mode with “OFF” or enable with “ON” (see Section 4.7).
- **status\_play\_speed:** Change the Status Report Playback speed (see Section 4.13) with “1-4” for speed, or “0” to disable (default = 3).
- **program\_key\_lock:** Disable Program Locking with “OFF” or enable with “ON” (see Section 4.11).
- **v-drive:** Force the v-Drive to open automatically every time the keyboard is plugged in with “auto” or require manual opening with “manual”.



```
startup_file=layout1.txt
macro_speed=9
game_mode=OFF
status_play_speed=3
program_key_lock=OFF
v_drive=manual
```

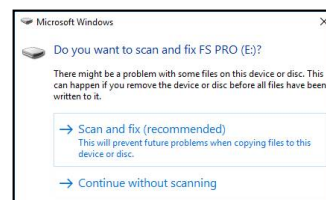
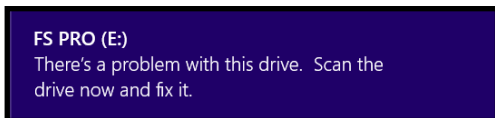
### SmartSet App Settings

In the settings sub-folder you may also notice the “app\_settings.txt” file. This file stores your saved preferences for in-App notifications when using the SmartSet App. “On” disables the notification and “Off” enables the notification.

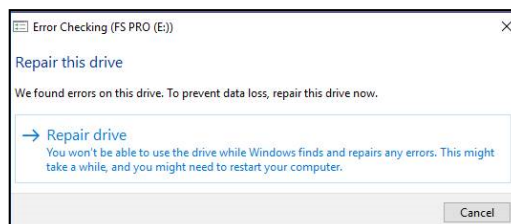
```
app_intro_msg=on
saveas_msg=off
save_msg=on
multiplay_msg=off
speed_msg=off
copy_macro_msg=off
reset_key_msg=off
```

## ⚠ 6.7 v-Drive Repair ⚠

If you forget to eject the v-Drive after Direct Programming on a Windows PC as described in Section 6.0, the next time you open the v-Drive on a Windows computer you may receive a harmless drive error warning.



If you receive this error, follow the prompts to quickly “repair” the drive.



## 7.0 Maintenance

To keep your Freestyle Pro performing at its peak, we recommend periodically spraying canned air between the keycaps to remove any loose debris and wiping it clean with a damp, soft cloth (no soap).

## 8.0 Technical Support, Repairs, and Returns

For FAQs, troubleshooting tips and links to other resources visit: [www.kinesis.com/support/freestyle-pro/](http://www.kinesis.com/support/freestyle-pro/). Kinesis offers free, lifetime technical support on all of our devices. Please submit a ticket and provide all of the requested information so we can diagnose your issue as fast as possible.

Submit a ticket here: [www.kinesis.com/support/contact-a-technician/](http://www.kinesis.com/support/contact-a-technician/)

### Return Merchandise Authorizations (“RMAs”)

For any repair, regardless of warranty coverage, you must first contact Kinesis Technical Support to obtain a Return Merchandise Authorization (“RMA”).

### Repairs

This product must be repaired by authorized personnel only. Unauthorized repairs may seriously jeopardize the safety of the user (such as from fire danger) and will invalidate your warranty.

### Packaging and Shipping

To ship a product back to Kinesis please use its original packaging or other suitable packaging that protects the device against impact and shock. You should insure the package with your carrier as Kinesis is not responsible for items until they are received at the Kinesis repair center. Packages sent to Kinesis without an RMA number marked on the outside of the box may be refused.

## 9.0 Warranty & Limitation of Liability

Visit [www.kinesis.com/warranty](http://www.kinesis.com/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.

### Disclaimer of Other Warranties

The warranty and remedies described in the Kinesis Limited Warranty referenced above are exclusive and in lieu of all others, whether oral or written, express or implied. Kinesis specifically disclaims any and all implied warranties, including, without limitation, warranties of merchantability and fitness for a particular purpose. No Kinesis dealer, agent, reseller, or employee is authorized to make any modification, extension, or addition to this warranty. Kinesis does not warrant that the product will meet your requirements, or that operation of the product will be uninterrupted or error-free, or that all errors will be corrected.

### Limitation of Liability

Kinesis is not responsible for special, incidental, or consequential damages resulting from any breach of warranty, or under other legal theory, including but not limited to lost profits, downtime, goodwill, damage to or replacement of equipment and/or property nor any costs of recovering, reprogramming, or reproducing any program or data stored in or used with Kinesis products.