

Savant Elite2

Programmable USB Foot Pedal Family
with SmartSet Technology



User's Manual



(this page intentionally left blank)

User's Manual for Kinesis® Savant Elite2™ Programmable USB Foot Pedals with SmartSet™

Savant Elite2 devices provide keyboard/mouse button emulation for any USB-enabled system capable of providing generic human interface device (“HID”) drivers for keyboards, mice, and removable disk drives.

All Savant Elite2 devices come loaded with the SmartSet™ Configuration App. SmartSet is a free, “no-install” graphical programming application for both PC & Mac that makes custom programming quick and easy.

This document is a reference guide for installing, using and maintaining your Savant Elite2 (“SE2”) device. The Programming Guide on page 14 provides detailed instructions for directly reprogramming your SE2 by editing the master configuration text file. Detailed instructions for using the SmartSet configuration app can be found in the device-specific Quick Start Guide, available at www.kinesis.com/savant-elite2-resources/.

Models covered:

FP10J: control module with two input jacks, bundled with one pedal

FP20A: two angled pedals mounted on steel base

FPW20A-IPX8: waterproof* dual angled pedals mounted on steel base

FP20AJ: two pedals mounted on steel base with one jack for extra pedal or hand trigger (extra inputs sold separately)

FP30A: three angled and adjustable pedals, mounted on steel base

FPW30A-IPX8: waterproof* triple angled pedals mounted on steel base

FP30AJ: three pedals mounted on steel base with one jack for extra pedal or hand trigger (extra inputs sold separately)

FPMJ2: control module only, with two input jacks

FPMJ4: control module only, with four input jacks



FP10J- Module & Pedal



FP20A- Dual Pedal



FP30A- Triple Pedal

Optional input accessories

FS007MP: Single foot pedal with mini-phono plug

FSW007MP-IPX8: Single waterproof* foot pedal with mini-phono plug

FS002HT8: Hand trigger, 8 foot cable with mini-phono plug.

*USB and mini-phono connections are not waterproof

March 2016 Edition

© 2016 by Kinesis Corporation. All rights reserved. www.kinesis.com. KINESIS is a registered trademark of Kinesis Corporation. SAVANT ELITE2, SE2, SMARTSET and SMARTSET APP are trademarks of Kinesis Corporation. WINDOWS is a registered trademark of Microsoft Corporation. Mac and OS X are registered trademarks of Apple, Inc. Information in this document is subject to change without notice. No excerpt or subset 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.

AGENCY & REGULATORY APPROVALS

Overview

- FCC/CE Class B for IT and medical applications
- UL recognized component for near patient use in US & Canada, ETL control number 4007055. Conforms to UL 60601-1, Certified to CSA STD C22.2 NO.601.1
- RoHS Compliant (lead-free)



FEDERAL COMMUNICATIONS COMMISSION 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 numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

CE COMPLIANCE FOR EMISSIONS AND IMMUNITY

This device has been tested to comply with the following European standards for emissions and immunity for ITE and medical equipment: En 55022, En 55024, EN 61000-3-2/3, and EN 60601-1-2.

MEDICAL PRODUCT SAFETY

Savant Elite2 products are recognized components, conforming to UL standard 60601-1; Certified to CSA standard C22.2 NO. 601.1. The ETL listing number is 4007055.

The ETL Recognized Component mark on the product label indicates compliance with UL 60601-1 and CSA Std C22.2 No. 601.1 standards for medical use. These products must be used with a UL-listed computer or UL-listed computerized equipment to comply with UL safety standards. The label will also indicate either IPX1 per UL and CE standards for "drip-proof" water resistance, or IPX8 for waterproof models.

This USB input device was not designed as a fault-tolerant medical device. In a medical setting, it is intended for use as a component of a UL-listed diagnostic instrument, not for patient care.

This product should not be used in the presence of a flammable atmosphere such as an anesthetic mixture with air, oxygen, or nitrous oxide.

TABLE OF CONTENTS

Repetitive strain caution	5
Overview, features, usage, & compatibility.....	6
Installation	7
Programming introduction.....	7
Health & safety tips	9
Adjusting pedal force	10
Cleaning & maintenance	10
Technical support	11
Kinesis limited warranty	12
Direct Programming Guide.....	14

READ ME FIRST– Repetitive strain caution

Continuous use of any computer input device may cause aches and pains or a more serious cumulative trauma disorder (CTD) such as tendinitis.

- Observe sensible guidelines when using any computer input device to help minimize the possibility of injury.
- Follow established guidelines for computer and workstation setup.
- Exercise good judgment in placing reasonable limits on your computer usage time every day.
- Ensure that you take reasonable rest breaks from computer use during the course of the day.
- At the first sign of stress-related injury (e.g., aching, numbness, or tingling of an extremity), consult your health care professional.

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 any of its products will prevent or cure any physical ailment.

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

Overview, features & usage compatibility

Common features of the Savant Elite2 family of devices (all models)

- Pedals are front hinged, low-profile, and force-adjustable for maximum comfort and usability.
- USB plug and play. Technology requires no special drivers to use or to reprogram the device on PC, Mac, Linux, Android, and Chrome.
Language note: US English keyboard driver must be used while re-programming any SE2 device.
- SmartSet Technology: Pedal actions defined by a tiny, editable text file residing on a memory chip in the device. Text file becomes visible on a virtual drive (“v-drive”) which is created when the device is placed into Program Mode.
- SmartSet App™: This no-install configuration application (Windows & Mac versions) is pre-loaded on each device and allows for easy graphical re-programming of factory actions.
- SmartSet App help file stored on the v-drive and accessible directly from the app for your convenience.
- Pedals can perform keyboard actions, macros, and mouse actions, including left mouse double click.
- Activate Program Mode (2 ways):
 - Toggle recessed switch on underside (except waterproof models), or
 - Press a pedal briefly while plugging in USB cable.
- Device firmware can be easily updated by user without any tools or drivers using SmartSet Bootloader.

Standard factory programming

FP10J and FPMJ2: Jack 1 = left mouse click, Jack 2 = right mouse click.

FPMJ4: Jacks 1 & 2 same as FPMJ2, Jack 3 = Backspace, Jack 4 = “Thank you,” macro.

FP20A: Left pedal = left mouse click, right pedal = right mouse click.

FP20AJ: Pedals same as FP20A, jack = left mouse click.

FP30: Left pedal = left mouse click, middle pedal = left mouse button double click, right pedal = right mouse click.

FP30AJ: Pedals same as FP30A, jack = left mouse click.

Common Usage

Kinesis has pre-programmed each Savant Elite2 device with the most popular actions. Using your SE2 device with the standard factory programmed mouse actions is a great way to reduce the strain of mousing. By holding the mouse simply for pointing, without worrying about clicking, you can substantially reduce the effort and repetition required of your mousing hand.

Some users may prefer to assign a commonly used keyboard action to a pedal, (e.g., Backspace or Tab). Kinesis cautions against using keyboard actions that require so much repetition that you create exhaustion and potential overuse of your feet and lower legs.

Simple macros are also a great use of your SE2 device. Commonly used commands for particular applications (e.g., Ctrl-F1) and frequently-used shifted characters (e.g., “@”) can also be assigned to a pedal as a simple macro. Macros are also great for commonly used phrases like an email signature or salutation.

Thanks to Kinesis’s SmartSet technology, it’s easy to customize your SE2 device in Windows or Mac OSX to your exact needs.

Advanced features

A number of advanced features are available, but it is recommended to avoid attempting to program these until you have successfully programmed standard key actions and simple macros.

- *Fast/Slow output.* If the default output from your SE2 device is too fast or too slow for your computer, a different playback speed can be selected for each pedal/macro.

- *Inserting “delays” between keystrokes.* Your SE2 device can program macros with one or more 0.125 or 0.5 second delays between keyboard or mouse actions.

- *Different press/release (DP&R).* There are several reasons to use this feature. In one application you may want to send F1 on pressing the pedal and F2 on release. This is equivalent to tapping F1 when pressing the pedal and tapping F2 when releasing it.

You can also use DP&R to make a macro that includes a modifier key emulate holding the keys on the keyboard, which may also make it repeat. See the Programming Guide on P14 for more details. Simple applications are also discussed in the SmartSet App help file.

System requirements

A computer with an available USB port is required. Savant Elite2 devices are compatible with, but do not require, USB 2.0 or USB 3.0.

SE2 devices use generic human interface device (“HID”) drivers provided by your computer’s operating system (“OS”). SE2 devices can be operated and programmed without any special drivers in most environments supporting USB devices, including Windows, Mac OS X, Linux, Android, and Chrome operating systems.

In Play Mode SE2 devices emulate a generic keyboard and mouse. In Program Mode they emulate a generic keyboard and a removable drive. Program Mode requires generic OS support for a removable drive and the US English keyboard driver to be selected. For a non-Windows OS, a text-editing program that can edit and save a file in “plain text” or “simple text” format is required.

Supported operating systems

Windows: Full feature support is provided under Windows 7, 8, 10, and earlier versions which support USB. The graphical “no-install” SmartSet configuration application is compatible with Windows 7, 8, and 10.

Linux, Android & Chrome: Most features are supported under these OS versions.

Macintosh systems (OS X 10.5 & newer): Most features are supported. However, OS X does not allow one USB device to modify another, so a pedal programmed as modifier key can only be used in combination with another pedal on the same device, not with a key on a keyboard.

However, a pedal programmed to perform “Command-b”, for example (which will typically toggle bolding), will operate correctly.

Installation

Play Mode

Be sure your Savant Elite2 device is in “Play Mode” before connecting it for the first time to any USB port. Look on the underside of the device for the labeled recessed slide switch. Waterproof SE2 devices do not have a slide switch and will default to Play Mode as long as a pedal isn’t pressed while it is being plugged in.

The first time you connect your SE2 device to a computer, the system will install generic human interface device (“HID”) drivers provided by the operating system. The red LED will come on briefly while the automatic installation process begins, and within a short time the steady green light will indicate that “Play Mode” installation is finished.

If you inadvertently connect the device in Program Mode, simply slide the switch to Play Mode and wait for the self installation to complete, as indicated by steady illumination of the green LED. If the green LED is flashing, check that the switch is in “Play mode”. If the red LED stays on, see “**Troubleshooting.**”

If you wish to re-program the device, first check that the factory configurations are functioning properly.

Programming introduction

Overview

Your Savant Elite2 device uses a simple text file saved to its onboard memory to store and execute custom keyboard or mouse actions. To program custom actions you have the choice of either editing the text

file directly using a basic text editing program (e.g., notepad), or using the preloaded Windows or Mac OSX version of the SmartSet App, which makes reprogramming fast and easy. The Direct Programming Guide is located on page 14 of this manual. Instructions for programming via the SmartSet app can be found in the SE2 Smart app help file which can be found on the KINESIS FP v-drive or at www.kinesisis.com/savant-elite2-resources/.

Activating Program Mode

Regardless of which programming method you choose, you must first place your device into Program Mode so that the “KINESIS-FP” virtual drive (“v-drive”) becomes accessible from your computer. There are two ways to activate Program Mode.

Method 1, Slide Switch: Turn over your SE2 device and, using a pen, move the recessed slide switch from the “Play” position to the “Program” position.

NOTE: DO NOT PRESS ANY PEDALS WHILE WAITING FOR V-DRIVE TO OPEN. IF YOU DO SO AND THE DEVICE STOPS WORKING, JUST UNPLUG IT, WAIT 15 SECONDS, THEN RECONNECT THE DEVICE.

Method 2, Hold Pedal while plugging in: If you have a waterproof device or prefer not to use the slide switch, you can activate Program Mode by holding down any pedal BRIEFLY (see above note) while plugging the device in to a USB port or while starting or re-booting your computer.

When an SE2 device is first placed into Program Mode on a new computer the red LED will illuminate briefly while the system auto-installs Program Mode. Then the red light will go out and the green light will flash to indicate that Program Mode is active and the v-drive is accessible.

Note: While an SE2 device is in Program mode, mouse actions by the device are disabled.

KINESIS FP virtual drive

Program Mode causes your computer to recognize your Savant Elite2 device as a virtual drive (“v-drive”) named KINESIS FP.

Upon entering Program mode, Windows users will be prompted with either the “Auto-play” popup (Windows 7) or the “My Computer” screen (Windows 8 & 10). Mac users will see a “Removable Volume” disk icon appear on the desktop. Tips for accessing the v-drive in different operating systems are provided in the Direct Programming Guide section below.

When you open the v-drive you’ll see two folders (“**Active**” and “**Firmware**”), a Mac and Windows version of the **SmartSet Application**, and the **SE2 SmartSet App Help** file (PDF). Windows users will see an additional folder, **SE2 SmartSet App (Mac).app**, that contains the program files for the Mac version of the application.

Active Folder

Inside the **Active** folder you’ll find a very important text file named **pedals.txt**. **Pedals.txt** is a very important because it contains the complete configuration instructions for your Savant Elite2 device. If this file becomes damaged your SE2 device will be temporarily disabled until the file can be fixed or restored. The Active folder also contains a file called **version.txt** which indicates which version of firmware your SE2 device is running.

Firmware Folder

Users can safely ignore the **Firmware** folder unless they are interested in updating to a different version of firmware. Kinesisis may periodically release updated firmware versions which will be available for free download at www.kinesisis.com/savant-elite2-resources/. For detailed instructions on updating the firmware see the Firmware Update section on page 9.

SmartSet App

From the v-drive, you have the ability to run either the Windows or Mac version of

the SmartSet App. The latest versions of the SmartSet App can be downloaded for free at www.kinesis.com/savant-elite2-resources/.

Closing Program Mode

When you have finished viewing or editing **pedals.txt** or utilizing the SmartSet App, be sure to save your changes and close the v-drive. Close the v-drive by moving the slide switch back to the “Play” position or by re-plugging your Savant Elite2 device if you held a pedal to put the device into Program Mode in the first place. When the v-drive is closed, any saved changes to **pedals.txt** will become active on your SE2 device.

NOTE: DO NOT PRESS ANY PEDALS WHILE WAITING FOR THE V-DRIVE TO CLOSE. IF YOU DO SO AND THE DEVICE STOPS WORKING, JUST UNPLUG IT, WAIT 15 SECONDS, THEN RECONNECT THE DEVICE.

Programming options

The preferred method of programming a Savant Elite2 device is via the SmartSet App if you are using Windows or Mac OSX. The SmartSet app includes onscreen instructions to guide you through the basic programming process and the **SE2 SmartSet Help** file (pdf) on the v-drive has detailed instructions and examples.

If you wish to program your SE2 device by directly editing the **pedals.txt** file, please read the full Programming Guide located on page 14 of this manual.

Firmware Update

If you need to update the firmware for your Savant Elite2 device, first confirm the version of firmware currently being run on the device. To check the firmware version, place the device in Program Mode (as described on page 8) open the SmartSet app, click the Help button, and select About from the drop-down menu. The About menu will indicate the current version of firmware. The latest firmware version can be downloaded at www.kinesis.com/savant-elite2-resources.

To update the firmware, save a copy of the desired firmware file to the Firmware folder on the Kinesis FP v-drive. Rename

that firmware file to “update.upd” and then re-connect your device while briefly holding down one of the pedals. This initiates the update process and when the green LED of your device is illuminated in 10-20 seconds, the update is complete. Re-enter Program Mode to confirm that your update.upd file in the firmware folder is gone, indicating a successful update process. You can check the version.txt file in the active folder to re-confirm the new firmware version of your SE2 device.

NOTE: Since the “update.upd” file is deleted following a successful firmware update, Kinesis recommends creating a duplicate version of the firmware to be updated in the Firmware folder so that it doesn't have to be downloaded again.

Hard Reset

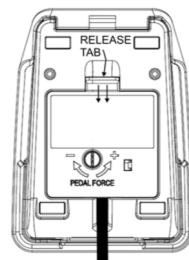
If your Savant Elite2 device is not functioning properly, one option is to perform a hard reset which will restore the device to its original factory programming by resetting the **pedals.txt** file. This should also allow the v-drive to be reformatted if the **pedals.txt** file becomes corrupted. To perform a hard reset, hold down two (2) pedals briefly while plugging the device into a USB port.

Health and safety tips

New users should have realistic expectations

If you currently have an injury to your hands or arms, or have had such an injury in the past and are off-loading work with a foot pedal, it is important that you have realistic expectations of your new input device.

Fig 1. Underside of pedal



You should not expect immediate improvement in your physical condition simply because you are using a new input device. 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 your Savant Elite2 foot pedal.

A foot pedal is not a medical treatment

A Savant Elite2 foot pedal is not a medical treatment nor is it a substitute for appropriate medical treatment. If any information in this guide seems to contradict the advice you have received from a health care professional, please follow your health care professional’s instructions.

Adjusting pedal force

In the center underside of the pedal is a small screw which may be *gently* turned to adjust pedal force in the range of approximately 3.5 to 4.5 lbs (Fig. 1). Pedals are normally factory configured for low force.

Molded marks on the cartridge indicate “+” for higher force and “-” for lower force. Use a thin coin (penny or dime) or flat screwdriver to turn the screw *gently* to change the force.

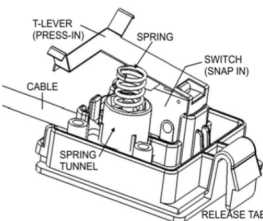
Cleaning & maintenance

Occasional external cleaning of your Savant Elite2 device is recommended. Clean by wiping the pedal(s) and the electronics enclosure with a damp cloth. Alternatively, a cloth dampened with rubbing alcohol (70% isopropanol) may be used though any silk-screened graphics on the electronics enclosure may be damaged over time by effects of the solvent.

Savant Elite2 devices are NOT DESIGNED TO BE STERILIZED OR TO BE USED IN A STERILE ENVIRONMENT.

Access to the inside of the pedal for occasional internal cleaning may be accomplished by removing the snap-in cartridge (see Fig 2 and instructions, below).

Fig 2. Assembled cartridge



Disassembling the pedal (removing cartridge)

The cartridge on the underside of each pedal may be removed for inspection, cleaning, repair or replacement of internal elements. For pedals mounted on a base, the two Phillips mounting screws must be removed before removing the pedal cartridge by squeezing the release tab (see “release tab” in Fig. 1 on previous page).

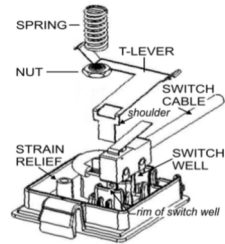
Once the cartridge has been removed (Fig. 2), the spring, switch, and/or USB cable may be inspected or replaced.

NOTE: waterproof switches cannot be serviced or repaired, other than to remove the entire cartridge for inspection or cleaning.

Disassembling the cartridge

When removed from the pedal, the assembled cartridge will look like Figure 2, above. In non-waterproof pedals, it may be further disassembled to replace the T-lever, the spring/nut assembly, or the switch & cable assembly (which are soldered together).

Fig 3. Exploded view of cartridge



The components of the cartridge are shown in the exploded view (Fig. 3 above). To remove the spring, first adjust pedal to maximum force (see above). The spring and nut should then lift out of the spring tunnel (Fig. 2 at left) together.

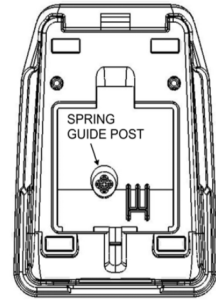
The T-lever is press-fitted into the switch well after the switch has been snapped into position. Be sure it is pressed down until the shoulder below the hinge point is resting on the rim of the switch well (Fig. 3). The switch snaps into the switch well and the cable is press-fitted through the strain relief posts (Fig. 3).

Re-assembling the pedal (re-installing cartridge)

Before re-installing the cartridge, check

that the spring, force-adjusting screw and nut, and the switch are correctly positioned (Fig. 2 at left). Insert the cartridge partially into the underside of the pedal with the two small tabs and cable pointing to the rear where the cable exits the foot switch. Align the spring to capture the spring guide post in the pedal top (Fig. 4), then lower the cartridge until the large release tab snaps into place.

Fig 4. Pedal underside, cartridge removed



Duty cycle

Savant Elite2 devices are rated for continuous operation by the foot and the pedals have been functionally tested to one million operations. In actual use, the computer or operating system may affect how the device performs under such conditions. Normal usage consists of intermittent pressing.

Technical Support

Standard factory programmed actions

See page 6.

Troubleshooting

Visit www.kinesis.com/savant-elite2-resources/ for additional troubleshooting tips.

Status lights

If a problem is suspected, check the LED status lights:

- No light– Device is not powered
- Steady Green– Device is in Play Mode
- Flashing Green– Device is in Program Mode
- Steady Red– Device is not ready and requires attention

Programming errors

If your Savant Elite2 device becomes unresponsive, it is possible errors have occurred in the `pedals.txt` configuration file, or a pedal was depressed when the v-drive was opening or closing.

The first thing to try is simply unplug and re-plug the device into a USB port. If that doesn't solve the problem, try activating Program Mode, either by using the slide switch, or by holding down a pedal while plugging in the device.

V-drive won't open or corrupt `pedals.txt`

If you are able to open the v-drive or edit the `pedals.txt` file, try deleting the `pedals.txt` file, or moving it via cut & paste to a different location. Then switch the device into Play mode or power cycle it (re-plugging) which will rebuild a new `pedals.txt` file in the active folder.

If these steps don't restore the functionality of the device, a "hard reset" can restore functionality (see p. 9). Sometimes reformatting the v-drive is necessary after such a process. Contact Kinesis Technical Support for further assistance.

Contacting Kinesis Technical Support

Please read the User's Manual before contacting Kinesis Technical Support. You can contact Kinesis Technical Support by email (tech@kinesis.com), fax (425-402-8181), or phone (800-454-6374, US only, or 425-402-8100). Technical support hours are 8:30-11:30am and 12:30-4:30pm Pacific Time, Monday-Friday except US holidays.

When you contact Kinesis, be prepared to document your purchase date, as well as your product model number, and serial number. Also, please have the brand, model and operating system of your computer handy.

Request an RMA number prior to repairs

For any repair, regardless of warranty coverage, you must first contact Kinesis Technical Support to explain the problem, provide certain information, and obtain an RMA number to write on your package. Packages sent to Kinesis without an RMA number may be refused. Savant Elite2 devices will not be repaired without information and instructions from the owner.

Repairs by authorized repair centers only

The product must be repaired by authorized, qualified personnel only. Unauthorized or inexpertly carried-out repairs may seriously jeopardize the safety of the user (such as from fire danger) and may invalidate your warranty.

Packaging and Shipping

If you need to ship a product back to Kinesis, use its original packaging or other suitable packaging that protects the device against impact and shock. Be sure to contact Kinesis Technical Support for an RMA number and shipping address. You should insure the package with your carrier as Kinesis is not responsible for items until they are received by the Kinesis repair center.

Kinesis Limited Warranty

Kinesis Corporation ("Kinesis") warrants to the original retail purchaser that this Kinesis product ("Product") is free from defects in materials and workmanship and will perform substantially in accordance with the Product documentation for two years from the date of purchase. This Warranty is not transferrable and does not apply to any software which might have been enclosed with the product, which are covered by a Kinesis License Agreement. If Product fails due to accident, abuse, inappropriate use, or normal wear, Kinesis shall have no responsibility under this Limited Warranty.

Purchaser's exclusive remedies

Subject to your retailer's return policy, during the first TWO (2) years after the date of original purchase, the exclusive remedy for a defect in this Kinesis Product shall be, at Kinesis Corporation's option, either repair or replacement of the product. If you suspect the Product is not working properly or if you have questions about the performance of the Product, contact Kinesis Technical Support. If you wish to return the Product to Kinesis for any reason, you must obtain from Kinesis an RMA number and instructions for returning the product. You are responsible for the cost of shipping the product to Kinesis. Within the United States and Canada, Kinesis will ship products repaired or replaced under warranty to you by ground at no charge. Customer will be responsible for all duties and/or taxes on international shipments which must be prepaid. Repair parts and replacement Product will be either reconditioned or new, at Kinesis' discretion.

Disclaimer of other warranties The warranty and remedies set forth 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, 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.

DIRECT PROGRAMMING GUIDE FOR SAVANT ELITE2 DEVICES

Your Savant Elite2 device comes with several factory-programmed actions (see page 6). If you are satisfied with these default actions, simply plug in your SE2 to an available USB port and it should be ready to use in seconds. If you want to customize the actions of one or more pedals or jacks on your SE2 device, there are two ways to reprogram:

1) Direct Programming– You can directly edit the pedals.txt master configuration file. This Programming Guide covers direct programming and includes a “dictionary” of available actions and sample macros for your convenience,

2) Programming with the SmartSet App- The preferred method of programming an SE2 device for Windows and Mac OSX is via the preinstalled SmartSet configuration application. The SmartSet App is a graphical application that makes it simple and easy to modify the aforementioned master configuration file without ever having to open and edit the pedals.txt file itself. Using the SmartSet App eliminates the need to familiarize yourself with the detailed instructions and macro syntax that follows. For instructions on using the SmartSet App, read the SE2 SmartSet Help file which is stored on the Kinesis FP v-drive on your SE2 device. The help file can be also be downloaded at www.kinesis.com/savant-elite2-resources/.

Before attempting to reprogram your SE2 device please read the Programming Introduction on page 7 of this manual. The Programming Introduction explains how to install your SE2 device, place it into Program Mode, access the KINESIS FP virtual drive, and exit Program Mode. Improper changes made to the pedals.txt file could cause your SE2 device to temporarily lose functionality.

Pedals.txt in the Active folder is the master configuration file

Pedals.txt is the master configuration file for your SE2 device. It can only be accessed from the Active folder on the KINESIS FP virtual drive (“v-drive”) when the device is in Program Mode. Please note that only a simple text file named “pedals.txt” and located in the Active folder can serve as the configuration file for your SE2 device.

Other small text files NOT named pedals.txt may also be placed in the Active folder without affecting the operation of your SE2 device. It is a good idea to make a copy of any edited files and save them with different names. These files can be stored inside or outside the Active folder or on your computer’s hard drive.

Important file storage note: Do not use the KINESIS FP v-drive for general file storage and do not load more than ~800kb of data on it.

Auto-restore feature & backup recommendation

If for some reason the pedals.txt file is not present in the Active folder when a

SE2 device is plugged in, the pedals.txt file will be recreated automatically using the default, factory-programmed actions. If you edit and re-save pedals.txt or copy a new pedals.txt file into the active folder, you must move the slide switch to “Play Mode” or power-cycle (unplug and reconnect) your device to make the new actions active. You can also check the Kinesis website (www.kinesis.com/savant-elite2-resources/) for the latest version of the User’s Manual, the SE2 Smart set help file (pdf), and the default pedals.txt file. The pedals.txt file and the help file can be saved to the v-drive if the original versions are moved or become corrupted.

Notes about using on a Mac operating system

Whenever you close the v-drive on a Mac computer, you will receive a “**Disk Not Ejected Properly**, Eject ‘KINESIS-FP’ before disconnecting or turning it off” (or equivalent) message. You can ignore this message as your Savant Elite2 device was intentionally designed not to require the ejection process. Also, if you use an SE2 device on a PC after using it on a Mac, you might see various hidden files on the v-drive that were created by the Mac OS. Ignore these files as they do not affect the operation of your SE2 device.

Programming in Linux, Android, Chrome

The appearance of the KINESIS FP v-drive will vary by device and operating system. In Android look in computer settings. In Chrome look in “files.” In Linux look in “my computer.”

Any text editor which has the ability to save the pedals.txt file as plain or simple text should suffice. Most or all keyboard and mouse actions should be supported.

Compatible text editors for programming Savant Elite2 devices

Always use a plain text editor if possible, and if not, be sure to select the “plain text” or “simple text” format when saving the pedals.txt file. It is a good idea to rename and save a backup outside the active folder or on your hard drive. Listed below are commonly-available text editors for different operating systems:

Windows: Notepad provides simple text only. If you use another text editor or word processor, save as plain text or simple text.

Mac OS X: TextEdit is the default editor. Under TextEdit “Preferences” select “plain text” as the format. Normally if you open a plain text file, it will save it in the same format by default.

Linux: For Ubuntu the default text editor is Gedit, which is similar to Microsoft Notepad.

Return to Play Mode after editing and saving pedals.txt

After editing and saving pedals.txt, the changes do not go into effect until you place the device back into Play Mode. If the device was placed into Program Mode by sliding the switch, simply slide the switch back to PLAY, wait a few seconds (your computer may play one or two “disconnect” tones). If the device was placed into Program mode by holding a pedal down while plugging it in, you must unplug and reconnect the device, or restart your computer, to re-enter Play Mode and implement your changes.

English (US) keyboard layout required

Your computer must be using the English (US) keyboard layout to edit the pedals.txt file. Other language drivers use different codes/positions for certain keys important for programming, such as [] and { }. If you want to use the pedal to produce text output using a different language, you will need to translate certain keys in the “dictionary” below in order to get the desired output. For keys that change between English and your desired language, type that key with both drivers to make yourself a custom language dictionary. Then use the English version of that key in the pedals.txt file. If macros are played while a different keyboard layout is active, some key actions will be changed. In the future, it should be possible to find conversion information for some non-US keyboard layouts on the v-drive or at www.kinesis.com/savant-elite2-resources/.

TROUBLESHOOTING

Troubleshooting tips and instructions for contacting Kinesis Technical Support are located on page 11.

DEFAULT CONFIGURATION IN PEDALS.TXT

Here are the factory-programmed actions in pedals.txt:

<u>Input > Code</u>	<u>Action</u>
[lpedal]>[lmouse].....	Left Mouse Button
{mpedal}>{lmouse}{d125}{lmouse}.....	Left Mouse Double Click
[rpedal]>[rmouse].....	Right Mouse Button
[jack1]>[lmouse].....	Left Mouse Button
[jack2]>[rmouse].....	Right Mouse Button
[jack3]>[bspace].....	Backspace
{jack4}>{-shift}{t}{+shift}{h}{a}{n}{k}{space}{y}{o}{u}{,}.....	Macro, “Thank you,”

Note: The middle pedal and jack 4 are macros. Since they are macros, they require {} (“braces”) around the pedal/jack input. A “double click” macro typically requires a 125ms (millisecond) delay so it includes {d125} between the two actions of the macro.

Note: Pedals.txt illustrates all seven potential inputs but your Savant Elite2 device will only have a subset of these pedals and jacks (see page 6).

BASIC PROGRAMMING OF YOUR SAVANT ELITE2 DEVICE

Custom programming new actions

To custom program new actions, simply open pedals.txt and input the new keyboard or mouse action(s) to the right of “>” for each respective pedal. The following pages include detailed instructions for programming the most popular actions and a dictionary for simple “cut and paste” programming.

Programming a single key or mouse action

Use square brackets [] around the desired pedal/jack input, then > (shifted period), then square brackets again around the desired keyboard or mouse button action.

Example 1: The left pedal will perform the letter “a”.

[lpedal]>[a]

Note: [lpedal]>[A] and [LPEDAL]>[a] both produce the same lower case “a” output.

Example 2: The middle pedal will perform the “shift” action.

[mpedal]>[shift]

*Note: After the pedal has been programmed, the lower case action of letter keys will always be produced unless the keyboard's Caps lock is on when pedal is pressed. For all alphanumeric keys, the un-shifted action will be produced unless the keyboard's Shift key is held while the pedal is pressed. However, a macro can be created which combines Shift and another key to produce the shifted action automatically (see **Programming a macro** below).*

Programming a macro (sequence of multiple keyboard and/or mouse actions)

When programming a macro, each input and action must be surrounded by “braces”(i.e., “{ }”). Longer macros can be tedious to write so take advantage of existing macros and examples as templates which can be edited.

Note: Macros normally play when the pedal is pressed, without waiting for release. If you want the macro to play only when the pedal is released, use the special feature below, “Different actions on pedal press & release.”

Note for Mac OS X: Modifier keys (i.e., shift, command, control, option) by themselves are not useful to assign to a pedal because Mac operating systems forbid one USB device from modifying another USB device.

Example 1. Left pedal plays the word “go”:

{lpedal}>{g}{o}

Example 2. Left pedal plays left mouse double click (a double click macro typically requires a 125 millisecond delay):

{lpedal}>{lmouse}{d125}{lmouse}

Note: If the double click isn't working properly, try adjusting the double-click timing/speed in your computer's Control Panel (Windows) or System Preferences > Mouse (Mac). Alternatively, you can leave your computer settings as-is and try inserting one or more additional 125 millisecond delays into your new macro.

Example 3. Using modifiers within macros, playing “Hi Joy!” by pressing the right foot pedal:

{rpedal}>{-shift}{h}{+shift}{i}{space}{-shift}{j}{+shift}{o}{y}{-shift}{1}{+shift}

Example 4. Macro plays “1+2=3” using the right pedal:

{rpedal}>{1}{-shift}{=}{+shift}{2}{=}{3}

ADVANCED PROGRAMMING FEATURES FOR MACROS

Several special features can be incorporated into macros. A different action can be produced on the press and on the release of the pedal. Also a faster or slower output speed can be selected. Also delays can be programmed within a macro.

Different actions on press and release

Place braces with a single space, { } (not {}) in between the “press” and “release” actions.

Example 1. Press produces F1 function key and release produces F2 function key:
{|pedal}>{F1}{ }{F2}

Example 2. Pressing pedal acts just like pressing and holding ctrl-alt-4, and releasing is just like releasing ctrl-alt-4:
{|pedal}>{ctrl}{alt}{4}{ }{4}{ctrl}{alt}

Macro playback Speed

Your Savant Elite2 device supports nine different playback speeds. Macros will automatically playback at the default speed which is “speed3”. Speed3 was chosen to provide optimal results for the widest array of macros but your custom macros may require a different speed to achieve the desired results. As such, macros can also be set to play back faster (speed4 - speed9) or slower (speed1 and speed2). To modify a macro’s playback speed, simply input the desired speed in braces before the characters/actions whose speed you wish to modify. Multiple speed modifiers can be included in a single macro.

{speed1} = 4.2 char/sec
{speed2} = 8.4 char/sec
{speed3} = 12.5 char/sec (default)
{speed4} = 22.7 char/sec
{speed5} = 34.2 char/sec
{speed6} = 62.5 char/sec
{speed7} = 84.1 char/sec
{speed8} = 125 char/sec
{speed9} = 250 char/sec

Example 1. This left pedal macro below plays back the phrase "fast slow" where the word “fast” is typed at speed5 and the word “slow” is typed at the speed9.
{|pedal}>{speed5}{f}{a}{s}{t}{space}{speed9}{s}{l}{o}{w}

Adding delays to macros

Macros can have one or more internal delays. Delays are most commonly used to support a double click action but you may find other applications for them. Your Savant Elite2 device supports two different delays: 125ms and 500ms (milliseconds). These delays can be used separately or in combination to create a delay of any length in increments of 125ms.

To insert a delay, use braces around the delay time and a “d” in front of the chosen increment: “{d125}” or “{d500}”. Attempting to insert a delay other than 125ms or 500ms will cause an error.

Example 1. Middle pedal macro plays “a” then delays 500 ms, then plays “b”:
{mpedal}>{a}{d500}{b}

Example 2. Middle pedal macro plays “F1” then delays one second (1000 ms = 500ms +500ms), then plays “F2”:
{mpedal}>{F1}{d500}{d500}{F2}

Incorrect syntax or language

If incorrect syntax or language is used, the pedal will usually resort to a default action which may differ from actions shown on page 6. In some cases pressing a pedal that has invalid programming may disable the device and cause the red LED to illuminate. If unplugging and reconnecting the device fixes the problem but pressing a pedal causes it to re-occur, it is most likely due to an error in the pedals.txt file. In that case, activate Program Mode and delete pedals.txt (or cut and paste to a location outside the Active folder). Then power cycle the device which will recreate a new version of the default pedals.txt file. Then re-edit the new pedals.txt file as desired.

If the above methods don’t fix the problem a “hard reset “ may be necessary. This is described in the Technical Support section on p11.

“DICTIONARY” OF TOKENS FOR AVAILABLE MOUSE & KEYBOARD ACTIONS & COMMON SHORT MACROS

Numbers and letters are sorted in alphanumeric sequence, while other keys are listed in familiar keyboard groupings. You can copy/paste from this list directly to your pedals.txt file (just remember to change [] to { } if you are pasting to create a macro).

Note: The text shown below must be copy/pasted or typed (inside square brackets) into the “Assigned Actions” section of the pedals.txt file. For example, use [pdown] for the “Page Down” key and [down] for the “Down” arrow key.

TOKENS FOR MOUSE ACTIONS

[lmouse]	Left mouse button click
[mmouse]	Middle mouse button click
[rmouse]	Right mouse button click
Double click	See macros, Mouse double click

TOKENS FOR KEYBOARD ACTIONS

Function key tokens

[F1]
[F2]
[F3]
[F4]

- [F5]
- [F6]
- [F7]
- [F8]
- [F9]
- [F10]
- [F11]
- [F12]

Number row key tokens– To perform the shifted action, hold the Shift key on keyboard while pressing the pedal. To make a pedal perform the shifted action without holding Shift, use a macro combining Shift with the number row key (see “Sample Macros” below).

- [1]
- [2]
- [3]
- [4]
- [5]
- [6]
- [7]
- [8]
- [9]
- [0]

- [=] This is the = + key in the number row.
- [hyphen] This is the number row hyphen (the shifted action is underscore, _).

Letter key tokens– Both “a” and “A” produce the same lower case output. To get the shifted version to play after programming the pedal, either turn on Caps lock or hold the Shift key on your keyboard while pressing the pedal. To make a pedal perform the shifted action without holding a Shift key, use a macro combining Shift with the letter key (see “Sample Macros” below).

- [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]	
[/]	Forward slash (the shifted action is ?) on the right side of the keyboard near the Shift key
[\ [']	Backslash (the shifted action is , commonly known as pipes) Apostrophe (the shifted action is quotation marks, ")
[^]	Accent (the shifted action is tilde, ~)
[;]	Semi colon (the shifted action is colon :)
[,]	Comma (the shifted action is less than, <)
[.]	Period (the shifted action is greater than, >)
[obrack]	Open bracket [. The shifted action is open brace or curly bracket, {
[cbrack]	Close bracket]. The shifted action is close brace or curly bracket, }

Navigation key tokens

[home]	Home
[end]	End
[pdown]	Page down
[pup]	Page up
[right]	Right arrow
[left]	Left arrow
[up]	Up arrow
[down]	Down arrow

Other keyboard action tokens

[escape]	Escape
[pause]	Pause/break
[prtscr]	Print screen
[scroll]	Scroll lock
[bspace]	Backspace (called "Delete" on Mac)
[enter]	Enter is called "Return" on Mac (different code than keypad Enter)
[tab]	Tab
[caps]	Caps lock
[space]	Space
[insert]	Insert performs "Help" on Mac
[delete]	Delete (called "Forward Delete" on Mac)

Modifier Key tokens

For most macros, it is not necessary to specify the left or right version of the modifier key (e.g., left Alt versus right Alt) in the pedals.txt file so you can use the generic form of the modifier key (i.e., “[alt]”). If your macro does require that you specifically identify a left or right version of a modifier key, the appropriate syntax is listed below.

[alt]	Alt key
[lalt]	Left Alt key
[ralt]	Right Alt key
[ctrl]	Control key
[lctrl]	Left Control key
[rctrl]	Right Control key
[shift]	Shift key
[lshift]	Left Shift key
[rshift]	Right Shift key
[win]	Windows key
[lwin]	Left Windows key
[rwin]	Right Windows key

Numeric keypad tokens

[kp=mac]	Mac keypad = key (this key does nothing on a PC, use PC number row = instead).
[numlk]	Numlock
[kppdiv]	Keypad divide
[kpmult]	Keypad multiply
[kpmin]	Keypad minus
[kpplus]	Keypad plus
[kpenter]	Keypad Enter
[kp1]	Keypad 1
[kp2]	Keypad 2
[kp3]	Keypad 3
[kp4]	Keypad 4
[kp5]	Keypad 5
[kp6]	Keypad 6
[kp7]	Keypad 7
[kp8]	Keypad 8
[kp9]	Keypad 9
[kp0]	Keypad 0

USEFUL COMMON MACROS

A macro is a multi-action sequence triggered by a single pedal action. Typically these are keyboard action sequences, but multiple mouse actions can be combined also (see **Default double click macro sample below**).

It is also possible to program a macro comprising both keyboard and mouse actions when supported by the operating system. For example, ctrl-click may be useful.

Note: If the pedal is held down, macros do not repeat like a single key would. See “Different Press and Release” above for tips on making macros repeat.

Default double left mouse button macro (middle pedal, “mpedal”)

This left mouse button double-click macro is in the default pedals.txt file, assigned to the middle pedal. It includes a 125 millisecond delay between clicks, which is typically required. For more information on inserting delays into macros, see “ADVANCED PROGRAMMING FEATURES FOR MACROS” above.

```
{mpedal}>{lmouse}{d125}{lmouse}
```

Macros for standard shifted actions of keys

Number row shifted actions for US keyboard layout. Examples shown are for left pedal. To program a macro for a shifted action, the “Shift” action is placed on either side of the key action to be shifted. You can copy and paste these examples to the pedals.txt file.

Note: Either the number row “hyphen” and “+” keys or the keypad minus and plus keys may be used as the “down action” and “release” indicator.

~	Tilde (Shifted accent, `)
Macro:	{lpedal}>{-shift}{`}{+shift}
!	Exclamation point (Shifted 1)
Macro:	{lpedal}>{-shift}{1}{+shift}
@	@ symbol (Shifted 2)
Macro:	{lpedal}>{-shift}{2}{+shift}
#	# symbol (Shifted 3)
Macro:	{lpedal}>{-shift}{3}{+shift}
\$	\$ symbol (Shifted 4)
Macro:	{lpedal}>{-shift}{4}{+shift}
%	Percentage symbol (Shifted 5)
Macro:	{lpedal}>{-shift}{5}{+shift}
^	^ symbol (Shifted 6)
Macro:	{lpedal}>{-shift}{6}{+shift}
&	& symbol (Shifted 7)
Macro:	{lpedal}>{-shift}{7}{+shift}
*	Asterisk symbol (Shifted 8)
Macro:	{lpedal}>{-shift}{8}{+shift}
(Open parenthesis (Shifted 9)
Macro:	{lpedal}>{-shift}{9}{+shift}

)	Close parenthesis (Shifted 0)
Macro:	{\pedal}>{-shift}{0}{+shift}
_	Underscore (Shifted hyphen, -)
Macro:	{\pedal}>{-shift}{-}{+shift}
+	Number row + (Shifted equals,=)
Macro:	{\pedal}>{-shift}{=}{+shift}
{	Left curly bracket or left brace (Shifted left square bracket)
Macro:	{\pedal}>{-shift}{[}{+shift}
}	Right curly bracket or right brace (Shifted right square bracket)
Macro:	{\pedal}>{-shift}{]}{+shift}
	Pipes character (Shifted forward slash, \, near the Enter key)
Macro:	{\pedal}>{-shift}{\}{+shift}
“	Quotation marks (Shifted apostrophe)
Macro:	{\pedal}>{-shift}{'}{+shift}
:	Colon (Shifted semi-colon)
Macro:	{\pedal}>{-shift}{:}{+shift}
<	Less than symbol (Shifted comma)
Macro:	{\pedal}>{-shift}{,}{+shift}
>	Greater than symbol (Shifted period)
Macro:	{\pedal}>{-shift}{.}{+shift}
?	Question mark (Shifted backslash, /)
Macro:	{\pedal}>{-shift}{/}{+shift}



KINESIS CORPORATION
 22030 - 20TH AVE SE, SUITE 102
 BOTHELL, WA 98021-4405, USA

sales@kinesis.com

800-454-6374

www.kinesis.com